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United States Department of the Interior
Bureau of Land Management

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Lewistown District Office

March 1998



Judith-Valley-Phillips Oil and Gas Supplemental Environmental Impact Statement



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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Montana State Office
222 North 32nd Street
P.O. Box 36800
Billings, Montana 59107-6800

Dear Reader:

Enclosed for your review and comment is the draft Judith-Valley-Phillips Oil and Gas Supplemental Resource Management Plan (RMP) Environmental Impact Statement (EIS). This supplement to the 1992 Judith-Valley-Phillips RMP/EIS addresses oil and gas leasing on Federal minerals in northcentral Montana. These lands are administered by the Bureau of Land Management through the Judith, Valley, and Phillips Resource Areas and includes Federal minerals in Fergus, Petroleum, Judith Basin, Phillips, and Valley Counties and the southern portion of Chouteau County.

This supplement addresses two additional alternatives for oil and gas leasing in northcentral Montana. One of the alternatives would avoid oil and gas leasing in areas with valuable wildlife habitat and the other alternative, the preferred alternative, would provide for oil and gas leasing while protecting other resource values through stipulations or closing areas where resource values are not compatible with exploration and development.

You are invited to make written comments on this document. We are particularly interested in comments that address one or more of the following: (1) possible errors in the analysis; (2) new information that would have a bearing on the analysis; (3) a possible new alternative not within the range of alternatives presented; and (4) needs for clarification. Specific comments will be most useful.

For consideration, your written comments must be received by close of business on August 6, 1998. Please include your name and complete mailing address on all written comments.

For further information or if you would like a briefing on the document please contact Jerry Majerus, Team Lead, at (406) 538-7461. Written comments should be addressed to David L. Mari, District Manager, Bureau of Land Management, Lewistown District Office, P.O. Box 1160, Lewistown, MT 59457-1160.

Sincerely yours,

Larry E. Hamilton
State Director

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OIL AND GAS SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT

TO THE

JUDITH-VALLEY-PHILLIPS
RESOURCE MANAGEMENT PLAN
AND
ENVIRONMENTAL IMPACT STATEMENT

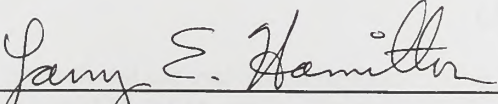
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Prepared by

United States Department of the Interior
Bureau of Land Management
Montana State Office
Lewistown District Office
Judith Resource Area
Valley Resource Area
Phillips Resource Area

Approved by:


Larry E. Hamilton
Montana State Director

3/17/98
Date

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LEWISTOWN DISTRICT OFFICE
LEWISTOWN, MONTANA

DRAFT OIL AND GAS SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT

TO THE

JUDITH-VALLEY-PHILLIPS RESOURCE MANAGEMENT PLAN
AND ENVIRONMENTAL IMPACT STATEMENT

MARCH 1998

ABSTRACT

This supplement to the 1992 Judith-Valley-Phillips Resource Management Plan and EIS addresses oil and gas leasing on Federal minerals in northcentral Montana. These lands are administered by the Bureau of Land Management through the Judith, Valley, and Phillips Resource Areas and includes Federal minerals in Fergus, Petroleum, Judith Basin, Phillips, and Valley Counties and the southern portion of Chouteau County.

This supplement addresses two additional alternatives for oil and gas leasing in northcentral Montana. One of the alternatives would avoid oil and gas leasing in areas with valuable wildlife habitat and the other alternative, the preferred alternative, would provide for oil and gas leasing while protecting other resource values through stipulations or closing areas where resource values are not compatible with exploration and development.

Comments on the draft supplemental EIS must be received by close of business on August 6, 1998. Please include your name and complete mailing address on all written comments. Written comments should be addressed to David L. Mari, District Manager, Bureau of Land Management, Lewistown District Office, P.O. Box 1160, Lewistown, MT 59457.

For further information contact Jerry Majerus, Team Lead, Lewistown District Office, P.O. Box 1160, Lewistown, MT 59457-1160, (406) 538-7461.

SUMMARY

PURPOSE

This document is a supplement to the final resource management plan and environmental impact statement (RMP/EIS) for the Judith, Valley and Phillips Resource Areas (RAs) of the Bureau of Land Management's (BLM) Lewistown District. This supplement addresses two additional alternatives for oil and gas leasing in northcentral Montana. One of the alternatives would avoid oil and gas leasing in areas with valuable wildlife habitat and the other alternative, the preferred alternative, would provide for oil and gas leasing while protecting other resource values through stipulations or closing areas where resource values are not compatible with exploration and development.

PLANNING ISSUE AND ALTERNATIVES

The BLM anticipates continued oil and gas exploration and development on BLM land and is responsible for oil and gas leasing on BLM-administered subsurface, regardless of surface ownership. In the final Judith-Valley-Phillips RMP/EIS (BLM, 1992) the BLM evaluated the types of stipulations needed on oil and gas leases to protect other resources including valuable wildlife habitat. In response to a protest received on the final RMP/EIS this supplement evaluates the need to avoid leasing in areas with valuable wildlife habitat in the planning area. This supplemental EIS along with the final RMP/EIS will be the basis for a record of decision (ROD) to lease with appropriate stipulations to protect resources, or not to lease because of sensitive resources which cannot be protected with stipulations.

A summary of the oil and gas stipulations and environmental consequences of the five alternatives analyzed in the final RMP/EIS along with the additional alternatives analyzed in this supplemental EIS are shown in Tables S.1 and S.2.

PREVIOUS ALTERNATIVES ANALYZED (ALTERNATIVES A - E)

Five alternatives were developed and analyzed in the final Judith-Valley-Phillips RMP/EIS (BLM, 1992). These alternatives are described in detail on pages 40, 51, 62, 74, and 87 of the final RMP/EIS.

SUPPLEMENTAL ALTERNATIVE (ALTERNATIVE F)

Under this alternative valuable wildlife habitat (2.1 million acres) would be closed to oil and gas leasing. This includes occupied raptor nests, bald eagle nests, piping plover nesting habitat, crucial winter range, grouse leks and nesting habitat, reservoirs greater than 10 surface acres, designated fisheries reservoirs and prairie dog towns identified for potential black-footed ferret reintroduction. Current oil and gas leases would continue according to the respective stipulations until the leases expire. As current leases expire, the areas would come under the management guidelines of this alternative. This would preclude further leasing in areas with valuable wildlife habitat.

The Square Butte (1,947 acres), Azure Cave (140 acres), and Collar Gulch Areas of Critical Environmental Concern (ACECs) (1,618 acres) would be closed to oil and gas leasing.

Wilderness Study Areas (WSAs) would also be closed to oil and gas leasing along with areas within 1/4-mile of WSAs and U.S. Fish and Wildlife Service refuges (160,615 acres).

The Big Bend of the Milk River ACEC is comprised of two sites; the Henry Smith (1,000 acres) and Beaucoup (1,120 acres). The Henry Smith Site would be open to oil and gas leasing with no surface occupancy restrictions. The Beaucoup Site would be open to oil and gas leasing with standard lease terms.

The BLM would provide standard terms and stipulations to protect other resource values identified as conflicting with oil and gas exploration and development on the other 1.1 million acres in the planning area. Controlled surface use stipulations would be used to protect visual resources, sensitive soils, cultural sites, and prairie dog towns. A lease notice would be used to inform lessees and operators of the requirements for cultural resource historic preservation compliance.

THE PREFERRED ALTERNATIVE (ALTERNATIVE G)

Under this alternative the BLM would provide for oil and gas exploration and development, while protecting other resource values through standard lease terms, stipulations, no surface occupancy restrictions or closing areas where

resource values are not compatible with exploration and development.

With standard lease terms the BLM could impose relocation not to exceed 200 meters, and/or timing restrictions not to exceed 60 days to minimize impacts to other resource values or land uses.

Seasonal or distance restrictions would be placed on oil and gas activities to protect raptor nests, crucial winter range, grouse nesting areas, and occupied mountain plover habitat. Controlled surface use stipulations would be applied to protect soils, visual resources and prairie dog towns within black-footed ferret reintroduction areas. A lease notice would be used to inform lessees and operators of the requirements for cultural resource historic preservation compliance.

A no surface occupancy stipulation would be placed on oil and gas activities to protect designated critical paleontology sites, R&PP facilities, developed recreation sites, bald eagle nests, piping plover nesting habitat, grouse leks, waterfowl production areas (reservoirs larger than 10 surface acres), riparian-wetland areas, and designated fisheries reservoirs.

WSAs would remain closed to oil and gas leasing. There are 2,480 acres of federal minerals adjacent to the Bitter Creek and Burnt Lodge WSAs that would be closed to oil and gas leasing. These lands are split estate inholdings (private surface/federal minerals). In those WSAs Congress determines unsuitable, the appropriate oil and gas lease stipulations would be applied. The Little Rocky Mountains (19,840 acres) would remain closed to oil and gas leasing pending the evaluation of this area as a potential ACEC. Two areas in the Valley RA are potential ACECs,

Bitter Creek WSA and Mountain Plover, and a plan amendment will address management decisions for these areas, including oil and gas leasing.

The Square Butte ACEC (1,947 acres) is currently segregated from the leasing laws by a classification under the authority of the Classification and Multiple-Use Act of 1964 (CMU). If Congress determines the Square Butte WSA is unsuitable as wilderness and the CMU classification is terminated, the area would be available for oil and gas leasing. The area would be divided between a no lease and no surface occupancy restrictions. The core area would be withheld from leasing. A 1/4-mile perimeter at the outer edge would be leased with no surface occupancy restrictions to protect from drainage.

The Azure Cave ACEC (140 acres) would be closed to oil and gas leasing, except to protect from drainage if cave resources can be protected.

The Big Bend of the Milk River ACEC is comprised of two sites; the Henry Smith (1,000 acres) and Beaucoup (1,120 acres). The Henry Smith Site would be open to oil and gas leasing with no surface occupancy restrictions. The Beaucoup Site would be open to oil and gas leasing with standard lease terms.

The Collar Gulch ACEC (1,618 acres) would be open to oil and gas leasing with stipulations to protect crucial winter range, visual resources, and riparian values.

If previously unrecognized resource values, conditions, uses, users or impacts are identified during review of an application for permit to drill, the BLM may require additional mitigation as conditions of approval. These conditions of approval would be consistent with lease rights.

TABLE S.1
SUMMARY OF OIL AND GAS STIPULATIONS

Resource	Alternatives Previously Analyzed					New Alternatives	
	Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Grouse Lek and Nest	NSO within 500 feet of strutting grounds. Timing - Mar 1 to Jun 30 avoid nesting areas.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of the lek. Timing - Mar 1 to Jun 15 surface use prohibited within 2 miles of the lek.	NSO for the lek. Timing - Mar 15 to Jun 15 surface use prohibited within 1/4 mile of the lek.	Closed within 2 miles of the lek.	NSO for the lek. Timing - Mar 15 to Jun 15 surface use prohibited within 1/4 mile of the lek.	
Raptor Nests	Timing - Mar 1 to Aug 1 surface use and occupancy restricted within 1/4 mile of nest sites.	200 meters (~656 feet) or 60 days.	Timing - Mar 1 to Aug 1 surface use prohibited within 1/2 mile of nest sites.			Timing - Mar 1 to Aug 1 surface use prohibited within 1/2 mile of nest sites.	
Ferret	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO for Complex 1 & Complex 2.	NSO for the 7km Complex.	CSU for Prairie Dog Towns within the 7km Complex.	Closed for the 7km Complex.	CSU for Prairie Dog Towns within the 7km Complex.
Prairie Dog	T&E species consultation.	200 meters (~656 feet) or 60 days.	Ferret inventory required.	Ferret inventory required.	200 meters (~656 feet) or 60 days.	Closed	200 meters (~656 feet) or 60 days.
Interior Least Tern	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of wetland habitat.			Closed within 1/4 mile of wetland habitat.	NSO within 1/4 mile of wetland habitat.
Piping Plover	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of wetland habitat.			Closed within 1/4 mile of wetland habitat.	NSO within 1/4 mile of wetland habitat.
CSU - Controlled Surface Use		NSO - No Surface Occupancy	T&E - Threatened and Endangered	VRM - Visual Resource Management			

**TABLE S.1 (cont.)
SUMMARY OF OIL AND GAS STIPULATIONS**

TABLE S.1 (cont.) SUMMARY OF OIL AND GAS STIPULATIONS							
Resource	Alternatives Previously Analyzed				New Alternatives		
	Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Grouse Lek and Nest	NSO within 500 feet of strutting grounds. Timing - Mar 1 to Jun 30 avoid nesting areas.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of the lek. Timing - Mar 1 to Jun 15 surface use prohibited within 2 miles of the lek.	NSO for the lek. Timing - Mar 15 to Jun 15 surface use prohibited within 1/4 mile of the lek.	Closed within 2 miles of the lek.	NSO for the lek. Timing - Mar 15 to Jun 15 surface use prohibited within 1/4 mile of the lek.	
Raptor Nests	Timing - Mar 1 to Aug 1 surface use and occupancy restricted within 1/4 mile of nest sites.	200 meters (~656 feet) or 60 days.	Timing - Mar 1 to Aug 1 surface use prohibited within 1/2 mile of nest sites.	CSU for Prairie Dog Towns within the 7km Complex.	Closed within 1/2 mile of nest sites.	Timing - Mar 1 to Aug 1 surface use prohibited within 1/2 mile of nest sites.	
Ferret	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO for Complex 1 & Complex 2.		Closed for the 7km Complex.	CSU for Prairie Dog Towns within the 7km Complex.	
Prairie Dog	T&E species consultation.	200 meters (~656 feet) or 60 days.	Ferret inventory required.	Ferret inventory required.	Closed	200 meters (~656 feet) or 60 days.	
Interior Least Tern	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of wetland habitat.		Closed within 1/4 mile of wetland habitat.	NSO within 1/4 mile of wetland habitat.	
Piping Plover	NSO within 1/4 mile of T&E habitat.	200 meters (~656 feet) or 60 days.	NSO within 1/4 mile of wetland habitat.		Closed within 1/4 mile of wetland habitat.	NSO within 1/4 mile of wetland habitat.	
CSU - Controlled Surface Use	NSO - No Surface Occupancy	T&E - Threatened and Endangered	VRM - Visual Resource Management				

**TABLE S.1 (cont.)
SUMMARY OF OIL AND GAS STIPULATIONS**

	Alternatives Previously Analyzed					New Alternatives	
Resource	Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Riparian/ Hydrology	Surface use or occupancy restricted 500 feet or 1,000 feet.	200 meters (~656 feet) or 60 days.	NSO within riparian areas, 100-yr flood plains of major rivers, and on water bodies and streams.				
Soils	Surface use or occupancy restricted on slopes over 30%.	200 meters (~656 feet) or 60 days.					
Recreation	Surface use restricted 300 feet from developed recreation areas and undeveloped recreation areas receiving concentrated public use.	200 meters (~656 feet) or 60 days.					
VRM Class I	CSU - May require special design including location, painting and camouflage.	200 meters (~656 feet) or 60 days.					
VRM Class II	CSU - May require special design including location, painting and camouflage.	200 meters (~656 feet) or 60 days.					
CSU - Controlled Surface Use	NSO - No Surface Occupancy	T&E - Threatened and Endangered					

TABLE S.1 (cont.) SUMMARY OF OIL AND GAS STIPULATIONS							
Resource	Alternatives Previously Analyzed					New Alternatives	
	Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
VRM Classes III & IV	CSU - May require special design including location, painting and camouflage.	200 meters (~656 feet) or 60 days.	CSU - May require special design including location, painting and camouflage.		200 meters (~656 feet) or 60 days.		CSU - May require special design including location, painting and camouflage.
Cultural Resources	Inventory required.	200 meters (~656 feet) or 60 days.	NSO within sites or areas designated for conservation use, public use, or sociocultural use.				
Cultural Notice	Notice - Surface management agency responsible for assuring inventory.	200 meters (~656 feet) or 60 days.	Notice - Inventory of lands may be required.		Notice - Surface management agency responsible for assuring inventory.	Notice - Inventory of lands may be required.	Notice - Surface management agency responsible for assuring inventory.
Paleontology	Notice - Surface management agency responsible for inventory.	200 meters (~656 feet) or 60 days.	NSO within designated paleontological sites.				
Wilderness Study Areas (WSAs)	Closed						
Areas Within 1/4 of WSAs and Fish & Wildlife Service Refuges	200 meters (~656 feet) or 60 days.			NSO	200 meters (~656 feet) or 60 days.	Closed	200 meters (~656 feet) or 60 days.
Little Rocky Mountains	Closed	200 meters (~656 feet) or 60 days.	Other resource stipulations (wildlife) would be applied in the Little Rocky Mountains.				
CSU - Controlled Surface Use		NSO - No Surface Occupancy		T&E - Threatened and Endangered		VRM - Visual Resource Management	

**TABLE S.2
SUMMARY OF THE ENVIRONMENTAL CONSEQUENCES**

IMPACTS TO OIL AND GAS

Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Most of the high and moderate development potential land (95%) would be available for oil and gas exploration and development.	The maximum amount of land (97%) would be available for oil and gas exploration and development.	Most of the high and moderate development potential land (92%) would be available for oil and gas exploration and development.	Only 36% of the high and moderate development potential land would be available for oil and gas exploration and development.	Most of the high and moderate development potential land (95%) would be available for oil and gas exploration and development.	Only 32% of the high and moderate development potential land would be available for oil and gas exploration and development.	Most of the high and moderate development potential land (96%) would be available for oil and gas exploration and development.

IMPACTS TO WILDLIFE

Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Habitat for raptor nesting would not be fully protected. Overall, this alternative would protect most wildlife resources.	Standard terms would allow oil and gas activities too close to various wildlife habitat during critical periods. Overall, the standard terms would not protect most wildlife resources.	Wildlife on winter range would not be fully protected during severe winters. Overall, this alternative would protect most wildlife resources.	This alternative would protect wildlife resources.	Wildlife on winter range would not be fully protected during severe winters and the entire grouse nesting habitat would not be completely protected. Overall, this alternative would protect most wildlife resources.	This alternative would protect wildlife resources.	The entire grouse nesting habitat would not be completely protected. Overall, this alternative would protect most wildlife resources.

IMPACTS TO AIR AND WATER QUALITY

Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Air quality would be affected in the immediate area of active wells where venting or flaring occurs.	Same as A.	Same as A.	Same as A.	Same as A.	Same as A.	Same as A.

**TABLE S.2 (cont.)
SUMMARY OF THE ENVIRONMENTAL CONSEQUENCES**

IMPACTS TO RECREATION						
Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Quality of recreation would be lessened by the intrusion of oil and gas activities.	Hunting opportunities could decrease in some areas with crucial winter range.	Same as A.	Same as A.	Same as A.	Same as A.	Same as A.
IMPACTS TO VISUAL RESOURCES						
Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Temporary visual impacts from production; the long-term impacts are minor.	Same as A.	Same as A.	Same as A.	Same as A.	Same as A.	Same as A.
IMPACTS TO CULTURAL RESOURCES						
Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Inventorying lands could increase the amount of cultural information. Some of an estimated 1,286 cultural properties eligible for the NRHP could be disturbed.	Similar to A, except some of an estimated 1,307 cultural properties eligible for the NRHP could be disturbed.	Similar to A, except some of an estimated 1,227 cultural properties eligible for the NRHP could be disturbed.	Similar to A, except some of an estimated 643 cultural properties eligible for the NRHP could be disturbed.	Similar to A, except some of an estimated 1,289 cultural properties eligible for the NRHP could be disturbed.	Direct impacts to cultural resources could be avoided since this alternative relies heavily on closing areas to oil and gas leasing. Impacts could be mitigated through avoidance or information recovery.	Same as E.

**TABLE S.2 (cont.)
SUMMARY OF THE ENVIRONMENTAL CONSEQUENCES**

IMPACTS TO SOIL AND VEGETATION						
Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Short-term soil erosion within the immediate site of well pads, roads and pipelines would result in a loss of vegetation.	Similar to A, except potential for increased soil erosion on slopes greater than 30%.	Similar to A, except greater protection would be provided for soils on slopes greater than 30% and for floodplain and riparian areas.	Same as C.	Same as C.	Same as C.	Same as C.
IMPACTS TO ECONOMIC CONDITIONS						
Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)
Unless a major discovery occurs, there would be no significant impacts.	Same as A.	Same as A.	There could be a loss of potential future economic activity associated with exploration but no effect to economic activity in the regional economy.	Same as A.	This alternative would have no effect on currently producing leases. However, opportunities for new discoveries on public land would be greatly diminished.	Same as A.

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MAPS

Map 1 Side A - Oil and Gas Leasing and Development, Judith Resource Area	
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ACRONYMS

ACEC	Area of Critical Environmental Concern
AO	Authorized Officer
APD	Application for Permit to Drill
BLM	Bureau of Land Management
BR	Bureau of Reclamation
CFR	Code of Federal Regulations
CMR	Charles M. Russell National Wildlife Refuge
CMU	Classification and Multiple Use Act
CSU	Controlled Surface Use
DNRC	Department of Natural Resources and Conservation
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FS	Forest Service
MNHP	Montana Natural Heritage Program
MOU	Memorandum of Understanding
NDSU	North Dakota State University
NEDAM	North Dakota Economic-Demographic Assessment Model
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NOS	Notice of Staking
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
NTL	Notice to Lessee
RA	Resource Area
RFD	Reasonably Foreseeable Development
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-Way
SMA	Special Management Area
SPG	Supplemental Program Guidance
T&E	Threatened and Endangered
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFWS	United States Fish and Wildlife Service
VRM	Visual Resource Management
WSA	Wilderness Study Area

CHAPTER ONE

INTRODUCTION

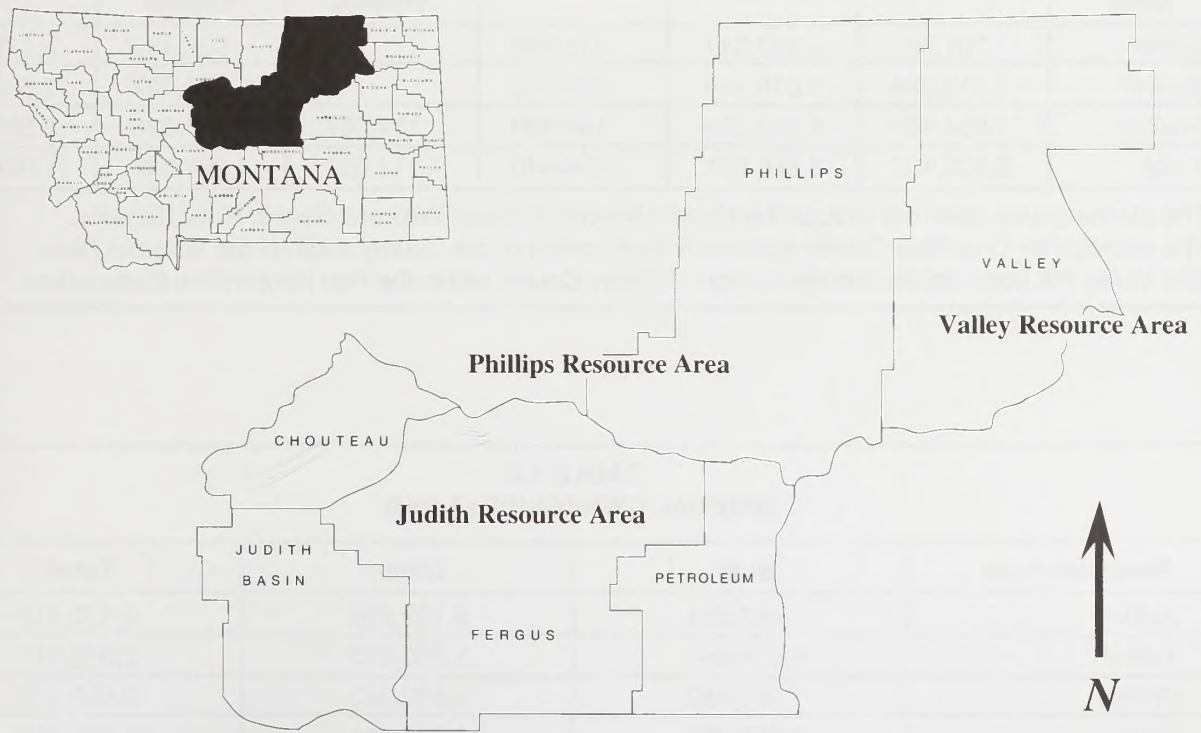
This document is a supplement to the final resource management plan and environmental impact statement (RMP/EIS) for the Judith, Valley and Phillips Resource Areas (RAs) of the Bureau of Land Management's (BLM) Lewistown District. This supplement addresses two additional alternatives for oil and gas leasing in northcentral Montana. One of the alternatives would avoid oil and gas leasing in areas with valuable wildlife habitat and the other alternative, the preferred alternative, would provide for oil and gas leasing while protecting other resource values through stipulations or closing areas where resource values are not compatible with exploration and development.

LOCATION OF THE PLANNING AREA

The Judith-Valley-Phillips planning area (see Figure 1.1) includes BLM land in Valley, Phillips, Fergus, Petroleum and Judith Basin Counties and that portion of Chouteau County south of the Missouri River. The planning area does not include the Upper Missouri National Wild and Scenic River Corridor.

The planning area encompasses 11,934,041 acres, of which 2,806,157 surface acres (24%) and 3,387,687 acres of mineral estate (28%) are administered by the BLM. The majority of landownership is private. Other significant

FIGURE 1.1
Location of the Judith, Valley, and Phillips Planning Area



landowners include the Fort Belknap Indian Reservation, the State of Montana, and the U.S. Department of Agriculture (USDA) Forest Service (FS). Table 1.1 portrays the surface ownership and Table 1.2 the mineral ownership in the planning area.

PURPOSE AND NEED

In September 1988, the National Wildlife Federation protested the issuance of oil and gas leases by the BLM in the State of Montana (September 16, 1988). The reasons for the protest were: (1) Inadequate analysis under the National Environmental Policy Act (NEPA) and (2) Non-Compliance with the Endangered Species Act based on the courts ruling in Conner v. Burford. The BLM's decision on this protest was that "we [BLM] are suspending lease issuance on tracts with special wildlife stipulations. These tracts will not be reoffered or leased until a . . . new RMP/EIS meeting our [Supplemental Program Guidance] SPG 1624.2 guid-

ance is completed and an [Record of Decision] ROD signed" (November 28, 1988).

In September 1988, the BLM issued a notice of intent to prepare a RMP/EIS for public lands in the Judith, Valley, and Phillips Resource Areas. One of the issues identified for the RMP was oil and gas leasing. The draft Judith-Valley-Phillips RMP/EIS was released for public comment in July 1991. The National Wildlife Federation comments on the draft RMP/EIS raised the concern that "this current policy [the November 28, 1988 decision] is nowhere mentioned, much less identified as a practical alternative" (December 16, 1991). The BLM responded to this comment in the final RMP/EIS on page 710 (as per 40 CFR 1503.4(a)(5)), "Lands which require special stipulations to protect wildlife resources, that are nominated for lease during the time this plan is being written, will not be offered for lease until the plan is final. . . . The interim policy is not described in the document because it is not considered as an alternative."

TABLE 1.1
SURFACE OWNERSHIP (Acres)¹

Resource Area	BLM	Private	State	Fort Belknap	Other Federal	Total
Judith ²	701,581	4,267,547	415,689	0	585,432	5,970,249
Valley ³	1,019,886	1,019,109	234,730	0	424,292	2,698,017
Phillips	1,084,690	1,599,365	186,030	114,057	281,633	3,265,775
Total	2,806,157	6,886,021	836,449	114,057	1,291,357	11,934,041

¹The planning area does not include the Upper Missouri National Wild and Scenic River Corridor.

²The acreage for Chouteau County pertains to that portion of the County south of the Missouri River.

³The Valley RA does not include the portion of Valley County within the Fort Peck Indian Reservation.

TABLE 1.2
MINERAL OWNERSHIP (Acres)¹

Resource Area	BLM	Other	Total
Judith ²	867,591	5,102,658	5,970,249
Valley ³	1,134,644	1,563,373	2,698,017
Phillips	1,385,452	1,880,323	3,265,775
Total	3,387,687	8,546,354	11,934,041

¹The planning area does not include the Upper Missouri National Wild and Scenic River Corridor.

²The acreage for Chouteau County pertains to that portion of the County south of the Missouri River.

³The Valley RA does not include the portion of Valley County within the Fort Peck Indian Reservation.

In January 1993, the National Wildlife Federation, Defenders of Wildlife, and Sierra Club protested the Montana State Director's Judith-Valley-Phillips RMP because the RMP/EIS neither mentions the 1988 decision nor did the RMP/EIS identify an alternative of carrying the temporary arrangement forward to avoid leasing valuable wildlife habitat.

The final RMP/EIS complies with the BLM's November 28, 1988, decision to complete a new RMP/EIS in accordance with supplemental program guidance (SPG) 1624.2 before tracts of land with special wildlife stipulations would be leased. However, the BLM did not adequately respond to the National Wildlife Federation's comments on the draft RMP/EIS concerning the suggested alternative as required by 40 CFR 1503.4(a)(2) nor did the BLM adequately discuss in the RMP the reason for the alternative being eliminated from detailed study as required by 40 CFR 1502.14(a). After careful review of this issue by the BLM's Director the protest warranted a supplement to the final RMP/EIS addressing an alternative for oil and gas leasing that would avoid leasing valuable wildlife habitat.

ISSUE

The BLM anticipates continued oil and gas exploration and development on BLM land and is responsible for oil and gas leasing on BLM-administered subsurface, regardless of surface ownership. In the final RMP/EIS (1992) the BLM evaluated the types of stipulations needed on oil and gas leases to protect other resources including valuable wildlife habitat. This supplement to the RMP/EIS will evaluate the need to avoid leasing in areas with valuable wildlife habitat in the planning area. This supplemental EIS along with the final RMP/EIS will be the basis for a record of decision (ROD) to lease with appropriate stipulations to protect resources, or not to lease because of sensitive resources which cannot be protected with stipulations.

PLANNING CRITERIA

Planning criteria guide the RMP by focusing efforts and providing direction and identifying legal, policy, or regulatory constraints that direct or limit the BLM's ability to resolve issues. Planning criteria are discussed in Chapter I of the final Judith-Valley-Phillips RMP/EIS (BLM, 1992).

CHAPTER TWO

ALTERNATIVES

INTRODUCTION

This Chapter summarizes five alternatives (Alternatives A - E) from the final Judith-Valley-Phillips Resource Management Plan and Environmental Impact Statement (RMP/EIS) and presents two other alternatives (Alternatives F and G) to address the issue of oil and gas leasing.

MANAGEMENT COMMON TO ALL ALTERNATIVES

The Montana State Bureau of Land Management (BLM) Office issues all federal oil and gas leases, including those involving split estate ownership. Stipulations will be applied by the appropriate resource area office, as prescribed in this document, to protect other resources. Stipulations used for split estate ownership apply only to Federal oil and gas approvals, not to any other land use.

For leases on 34,413 acres managed by the Bureau of Reclamation (BR) they provide stipulations and conditions in accordance with their agency's planning guidance (see Appendix A). The special stipulation contained in Appendix A would be attached after Reclamation reviews the lease. For lands administered by the Forest Service (FS), the BLM would issue leases for those areas approved by the FS for leasing and for which they have attached the appropriate resource stipulations. Memorandums of Understanding (MOU) with these agencies contain more detail on the leasing process. Leases for Indian lands (Tribal and allotted) are issued by the Bureau of Indian Affairs.

All leases are subject to BLM operation regulations (43 CFR 3160), Onshore Orders, Notices to Lessees, and the standard terms in the Federal Lease Form 3100-11, and the regulations at 43 CFR 3101.1-2.

Geophysical exploration is normally authorized by each representative agency. The BLM uses a Notice process to regulate geophysical exploration on BLM lands in the planning area. Oil and gas lease stipulations do not affect geophysical exploration.

Notices of Staking (NOSs), Applications for Permit to Drill (APDs), Deepen or Plugback, and Sundry Notices are reviewed and approved by the appropriate resource area office and approved by the authorized officer (AO). For activities on other surface management agency lands, the

approval process is conducted under regulations and agreements specific to that agency. At the time of activity approval on BLM and split estate lands, the authorized officer may waive, except or modify stipulations. This could be the case where the resource requiring protection is not present, or when operations can be conducted with acceptable impacts. Additional conditions may be added as site specific conditions of approval to provide for conditions found during field visits.

Prior to authorizing any surface disturbing activity the BLM will evaluate the site relative to the proposed activity and if necessary apply site-specific mitigation measures for soils with high erosion susceptibility, steep slopes, sparse vegetation and shallow soil depth. All surface disturbing activities are subject to an on-site evaluation to develop mitigation to reduce erosion and soil compaction and improve soil stability and salinity control. These mitigation measures also prescribe revegetation programs, such as identifying topsoil and suitable subsoil to rehabilitate the area. APDs will include mitigation as described in the Surface Operating Standards for Oil and Gas Exploration and Development (BLM and USFS, 1989). Best Management Practices (BMPs) will be implemented to protect watershed values and maintain or improve water quality (see Appendix E of the final Judith-Valley-Phillips RMP/EIS). Soils and Water Resource Management are discussed in more detail in the final Judith-Valley-Phillips RMP/EIS (BLM, 1992).

Current oil and gas leases would continue according to the respective stipulations until they expire. As current leases expire, the areas would come under the management guidelines of this document. The oil and gas leasing and permitting process is described in Appendix B of the Judith-Valley-Phillips RMP/EIS (BLM, 1992).

ALTERNATIVES A - E

Five alternatives were developed and analyzed in detail in the final Judith-Valley-Phillips RMP/EIS. These alternatives are described in detail on pages 40, 51, 62, 74, and 87 of the final RMP/EIS (BLM, 1992).

Alternative A is current management or the no action alternative. Under this alternative, the BLM would protect surface resource values on lands open to oil and gas leasing. Land available for oil and gas leasing would be subject to stipulations (3,232,075 acres), no surface occupancy re-

strictions (17,810 acres) or closed to oil and gas leasing (137,802 acres).

Alternative B would provide the maximum oil and gas exploration and development opportunities by leasing land with minimum lease stipulations. BLM land would be open to oil and gas leasing with standard terms only (3,269,725 acres). Wilderness Study Areas (WSAs) would remain closed to oil and gas leasing (117,962 acres).

Alternative C would provide for oil and gas exploration and development, while protecting other resource values. Land available for oil and gas leasing would be subject to standard terms and a stipulation for visual resources (441,495 acres), other stipulations (2,682,348 acres), no surface occupancy restrictions (126,042 acres) or closed to oil and gas leasing (137,802 acres).

Alternative D would provide stipulations to protect resource values identified as conflicting with oil and gas exploration and development. Land available for oil and gas leasing would be subject to standard terms and a stipulation for visual resources (441,495 acres), other stipulations (767,811 acres), no surface occupancy restrictions (2,034,819 acres) or closed to oil and gas leasing (143,562 acres).

Alternative E would provide for oil and gas exploration and development, while protecting other resource values. Land available for oil and gas leasing would be subject to standard terms only (1,474,481 acres), stipulations (1,760,426 acres), no surface occupancy restrictions (34,818 acres) or closed to oil and gas leasing (117,962 acres).

ALTERNATIVE F

Under this alternative valuable wildlife habitat (2.1 million acres) would be closed to oil and gas leasing. This includes occupied raptor nests, bald eagle nests, piping plover nesting habitat, crucial winter range, grouse leks and nesting habitat, reservoirs greater than 10 surface acres, designated fisheries reservoirs and prairie dog towns identified for potential black-footed ferret reintroduction. Current oil and gas leases would continue according to the respective stipulations until the leases expire. As current leases expire, the areas would come under the management guidelines of this alternative. This would preclude further leasing in areas with valuable wildlife habitat.

The Square Butte (1,947 acres), Azure Cave (140 acres), and Collar Gulch ACECs (1,618 acres) would be closed to oil and gas leasing.

WSAs would also be closed to oil and gas leasing along with areas within 1/4-mile around WSAs and U.S. Fish and Wildlife Service refuges (160,615 acres).

The Big Bend of the Milk River ACEC is comprised of two sites; the Henry Smith (1,000 acres) and Beaucoup (1,120 acres). The Henry Smith Site would be open to oil and gas leasing with no surface occupancy restrictions. The Beaucoup Site would be open to oil and gas leasing with standard lease terms.

The BLM would provide standard terms and stipulations to protect other resource values identified as conflicting with oil and gas exploration and development on the other 1.1 million acres in the planning area. Controlled surface use stipulations would be used to protect visual resources, sensitive soils, cultural sites, and prairie dog towns. A lease notice would be used to inform lessees and operators of the requirements for cultural resource historic preservation compliance. The stipulations along with waivers, modifications, and exceptions are described in Appendix B, Attachment B.1.

Table 2.1 shows the acreage in the Judith, Valley, and Phillips Resource Areas that would be subject to standard lease terms, stipulations, or closed to leasing in high and moderate oil and gas development potential areas. There are no areas of low development potential within the resource areas, except FS land in the Little Belt Mountains.

ALTERNATIVE G (Preferred Alternative)

Under this alternative the BLM would provide for oil and gas exploration and development, while protecting other resource values through standard lease terms, stipulations, no surface occupancy restrictions or closing areas where resource values are not compatible with exploration and development. The stipulations along with waivers, modifications and exceptions are described in Appendix B, Attachment B.2.

Standard lease terms would provide protection for resources in unstipulated areas. The BLM could impose relocation not to exceed 200 meters, and/or timing restrictions not to exceed 60 days on unstipulated oil and gas leases to minimize impacts to other resource values or land uses.

Seasonal or distance restrictions would be placed on oil and gas activities to protect raptor nests, crucial winter range, grouse nesting areas, and occupied mountain plover habitat. Controlled surface use stipulations would be applied to

TABLE 2.1
ALTERNATIVE F
FEDERAL MINERAL ESTATE SUBJECT TO STANDARD LEASE TERMS,
STIPULATIONS, NO SURFACE OCCUPANCY OR CLOSED TO OIL AND GAS LEASING (ACRES)

Resource Area	Standard Terms Only	VRM Class III & IV Stipulation Only ¹	Other Stipulations ¹	No Surface Occupancy	Closed
Judith	0	147,368	118,665	1,120	600,438
Valley	0	79,601	442,998	0	612,045
Phillips	0	77,747	212,708	1,280	1,093,717
Total	0	304,716	774,371	2,400	2,306,200

¹Standard lease terms would also apply to the acreage identified for stipulations.

protect soils, visual resources and prairie dog towns within black-footed ferret reintroduction areas. A lease notice would be used to inform lessees and operators of the requirements for cultural resource historic preservation compliance.

A no surface occupancy stipulation would be placed on oil and gas activities to protect designated critical paleontology sites, R&PP facilities, developed recreation sites, bald eagle nests, piping plover nesting habitat, grouse leks, waterfowl production areas (reservoirs larger than 10 surface acres), riparian-wetland areas, and designated fisheries reservoirs.

WSAs would remain closed to oil and gas leasing. There are 2,480 acres of federal minerals adjacent to the Bitter Creek and Burnt Lodge WSAs that would be closed to oil and gas leasing. These lands are split estate inholdings (private surface/federal minerals). In those WSAs Congress determines unsuitable, the appropriate oil and gas lease stipulations would be applied. The Little Rocky Mountains (19,840 acres) would remain closed to oil and gas leasing pending the evaluation of this area as a potential area of critical environmental concern (ACEC). Two areas in the Valley RA are potential ACECs, Bitter Creek WSA and Mountain Plover, and a plan amendment will address management decisions for these areas, including oil and gas leasing.

The Square Butte ACEC (1,947 acres) is currently segregated from the leasing laws by a classification under the authority of the Classification and Multiple-Use Act of 1964 (CMU). If Congress determines the Square Butte WSA is unsuitable as wilderness and the CMU classification is terminated, the area would be available for oil and

gas leasing. The area would be divided between a no lease and no surface occupancy restrictions. The core area would be withheld from leasing. A 1/4-mile perimeter at the outer edge would be leased with no surface occupancy restrictions to protect from drainage.

The Azure Cave ACEC (140 acres) would be closed to oil and gas leasing, except to protect from drainage if cave resources can be protected.

The Big Bend of the Milk River ACEC is comprised of two sites; the Henry Smith (1,000 acres) and Beaucoup (1,120 acres). The Henry Smith Site would be open to oil and gas leasing with no surface occupancy restrictions. The Beaucoup Site would to open to oil and gas leasing with standard lease terms.

The Collar Gulch ACEC (1,618 acres) would be open to oil and gas leasing with stipulations to protect crucial winter range, visual resources, and riparian values.

If previously unrecognized resource values, conditions, uses, users or impacts are identified during review of an application for permit to drill, the BLM may require additional mitigation as conditions of approval. These conditions of approval would be consistent with lease rights.

Table 2.2, and Map 1 in the back of this document, shows the acreage in the Judith, Valley, and Phillips Resource Areas that would be subject to standard lease terms, stipulations, no surface occupancy restrictions or closed to leasing in high and moderate oil and gas development potential areas. There are no areas of low development potential within the resource areas, except FS land in the Little Belt Mountains.

TABLE 2.2
ALTERNATIVE G - PREFERRED ALTERNATIVE
FEDERAL MINERAL ESTATE SUBJECT TO STANDARD LEASE TERMS,
STIPULATIONS, NO SURFACE OCCUPANCY OR CLOSED TO OIL AND GAS LEASING (ACRES)

Resource Area	Standard Terms Only	VRM Class III & IV Stipulation Only ¹	Other Stipulations ¹	No Surface Occupancy	Closed
Judith	0	252,760	596,081	3,553	15,197
Valley	0	462,599	600,009	3,031	69,005
Phillips	0	622,343	690,859	16,170	56,080
Total	0	1,337,702	1,886,949	22,754	140,282

¹Standard lease terms would apply to the acreage identified for stipulations and no surface occupancy.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Although specific sites in the planning area are identified for exclusion from oil and gas leasing under the alternatives, a no lease alternative is not reasonable for the entire planning area. Approximately 28 percent of the planning area is currently leased and would remain so until existing leases expire or terminate. Public comments received during the resource management planning process indicate mineral leasing and development could take place in a manner that would avoid unacceptable adverse impacts to other resources if properly managed. However, concern was expressed that oil and gas leasing and development is not compatible with wildlife habitat management. Alternative F would avoid oil and gas leasing in areas with valuable wildlife habitat but not the entire planning area. Resource conditions, including wildlife habitat, do not warrant a planning area wide prohibition of oil and gas leasing to address resource conflicts. For these reasons a no lease alternative for the entire planning area would not be practical or feasible and was eliminated from detailed study.

A variation of the no lease alternative is a buy out or lease buy back option. This option could require companies to remove facilities, cap producing wells and rehabilitate the area to a natural condition. Private property rights would have to be fully compensated; making it extremely expensive. Costs to the government could be in the hundreds of millions of dollars and this alternative would be difficult to sustain legally and environmentally. This option is not a reasonable alternative and was eliminated from detailed study.

SUMMARY OF ALTERNATIVES

Tables S.1 and S.2 present a summary comparison of the alternatives (Tables S.1) and the environmental consequences (Table S.2). Tables S.1 and S.2 are located in the Summary at the beginning of this document. Table 2.3 provides a comparison of the total federal mineral estate subject to standard lease terms, stipulations, no surface occupancy or closed to oil and gas leasing.

<p align="center">TABLE 2.3 SUMMARY OF FEDERAL MINERAL ESTATE SUBJECT TO STANDARD LEASE TERMS, STIPULATIONS, NO SURFACE OCCUPANCY, OR CLOSED TO OIL AND GAS LEASING</p>								
	Previous Alternatives Analyzed					New Alternatives		
	Alternative A (Current)	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G (Preferred)	
Standard Terms Only	0	3,269,725	0	0	1,474,481	0	0	0
VRM Class III and IV Stipulation Only ¹	0	0	441,495	441,495	0	304,716	1,337,702	
Other Stipulations ¹	3,232,075 ²	0	2,682,348	767,811	1,772,490 ³	774,371	1,886,949	
No Surface Occupancy	17,810	0	126,042	2,034,819	22,754 ³	2,400	22,754	
Closed	137,802	117,962	137,802	143,562	117,962	2,306,200	140,282	
¹ Standard lease terms would also apply to the acreage identified for stipulations. ² Includes standard stipulations and special stipulations. ³ These acreages were corrected since the final Judith-Valley-Phillips RMP (BLM, 1992) due to an error in the calculations for the Little Rocky Mountains and a portion of the prairie dog towns.								

CHAPTER THREE

AFFECTED ENVIRONMENT

INTRODUCTION

The affected environment is a description of the natural resources and economic and social conditions found in the planning area. This information can be found on pages 101 to 155 of the final Judith-Valley-Phillips RMP/EIS (BLM, 1992). The following section on wildlife and fisheries, economics, social conditions and areas of critical environmental concern was updated based on new information since the final RMP/EIS was released in 1992.

WILDLIFE AND FISHERIES

Threatened and Endangered Wildlife Species

An endangered species is one that faces extinction throughout all, or a significant portion of its range. Threatened species are those likely to become endangered in the foreseeable future.

Historical and potential habitat for four species of wildlife which are federally classified as endangered or threatened occur within the planning area (see Appendix C). The planning area does not include the Upper Missouri National Wild and Scenic River Corridor. These species are the bald eagle, peregrine falcon, black-footed ferret, and piping plover. Two other species, the mountain plover and the swift fox, are candidates for listing as threatened or endangered.

The bald eagle is the only endangered species which routinely uses Bureau of Land Management (BLM) land within the planning area. There are historical nesting sites along the Missouri River as well as two active sites. The Judith and Milk Rivers and Frenchmen Creek Reservoir also have historic nesting sites. The planning area is used during spring and fall migration. Peak use months for the bald eagle are March, April and November. The Missouri and Milk Rivers provide good habitat for eagles during migration. Bald eagles are present during mild winters on and in the vicinity of the Missouri and Milk Rivers; concentrating in areas of open water where waterfowl and fish are available as food or where carrion can be found. Bald eagles migrate through the area somewhat concurrent with the waterfowl spring and fall migrations.

Peregrine falcons have been sighted during spring and fall migrations. There are no known breeding pairs or historical nesting areas in the planning area. Peak months for falcon occurrence are March, April and November. Peregrine falcons have been released along the Missouri river for the last five years. Falcons have been observed in the Phillips Resource Area (RA) during late April and May; suggesting nestings may be occurring. Peregrine falcons migrate through the area following the waterfowl migration.

There are historical records of black-footed ferrets in the Phillips RA. Flath and Clark (1986) list two specimens for Phillips County (December, 1923 and January, 1924). There have been recent (1983-present) unconfirmed sightings in Phillips County, and skeletal remains were found in 1983 on the Fort Belknap Indian Reservation. The historic range of the ferret in Montana corresponds to the range of the black-tailed prairie dog.

In 1994 black-footed ferrets were reintroduced into south Phillips County on the Charles M. Russell National Wildlife Refuge (CMR). A total of 40 ferrets were released. In July of 1995 wildborn kits were found and it is believed that five kits were produced that year. In October of 1995 another 36 ferrets were released. In July of 1996 wildborn kits were found and a total of 16 kits were produced. In August, September and October of 1996 another 43 ferrets were released. In December of 1996 there was a minimum population of 36 ferrets. At least one of the ferrets was found early in November 1996 on BLM land.

The planning area contains habitat for two candidate species identified by the United States Fish and Wildlife Service (FWS). Those species are the mountain plover and the swift fox.

Mountain plovers migrate into the planning area in late April and are gone by early September. Preferred vegetation is varied and includes Nuttall's salt bush, Nuttall's alkali grass, blue grama, western wheatgrass, silver sagebrush, wild buckwheat, prairie sandgrass, needleandthread grass, fringed sagewort, blue bunch wheatgrass, or thread leaf sedge. Key habitats for mountain plovers include large valley bottoms and other relatively level areas with grassland or dwarf shrub habitats that have been intensively grazed by livestock or prairie dogs to provide low vegetation (less than 10 centimeters in height) and bare ground (Knowles and Knowles 1993, 1994, 1996, FaunaWest 1995). Mountain plovers in the Phillips RA are often associated with black-tailed prairie dog towns while in the

Valley RA, they are found in hardpan locations. This is unique to this area. Throughout the remainder of the plover's range (Colorado and Wyoming) the plover uses the short-grass prairie. The plover relies on insects and seeds for summer food.

Historically the swift fox is found on open shortgrass and midgrass prairie. They dig dens on rolling hills and sometimes near roads fence lines and corrals. Currently there is a study in northcentral Montana to determine habitat and abundance of the swift fox. The swift fox diet consists mainly of birds, rabbits and other small mammals during the winter. In the summer and early fall vegetation, berries, beetles and grasshoppers are also frequently taken.

Nongame Birds and Mammals

At least 253 black-tailed prairie dog towns, covering over 22,789 acres, occurred in the planning area in 1988. The Fort Belknap Indian Reservation and CMR are adjacent to the planning area and contain about 26,500 acres of prairie dog towns. The prairie dog towns were studied as a potential reintroduction site for the black-footed ferret and ferret reintroduction began in 1994.

Black-tailed prairie dog shooting began increasing in the Phillips RA in 1983. This area was considered one of the best areas of its kind in the United States. Approximately 300 shooters visited the Phillips RA annually. It is estimated that shooting prairie dogs slowed their town expansion rate from 15% to 3% per year.

In 1992 plague was discovered in the prairie dog population of south Phillips County. Over the next three years the population decreased to about 30% of the 1988 population. Plague is still active in isolated portions of Phillips County. Some prairie dog towns again contain a prairie dog population that has been gone for 2 to 3 years.

The prairie dog towns also provide sightseers with an opportunity to see black-tailed prairie dogs, mountain plover, burrowing owl, ferruginous hawk and other species. Prairie dog towns provide an island of unique habitat that attracts a large number of wildlife species (Kogord, 1958 and Reading et al, 1989).

ECONOMIC CONDITIONS

The final Judith-Valley-Phillips RMP/EIS contains a detailed description of economic conditions and trends across the entire planning area, including analysis of economic activity related to oil and gas activity and recreation, the two

sectors most likely to be affected by the alternatives. Economic conditions and trends across the planning area have remained substantially the same since the publication of the final RMP/EIS in 1992 and, therefore, remain relevant to this supplemental EIS. However, because some current oil and gas leasing and exploration activity may be further affected by Alternative F, additional information is included here to supplement the original analysis.

A lease is initially issued for a 10-year period. Generally, a non-producing lease expires after 10 years if it does not become a producing lease within that time period (a producing lease is a lease on which there is a producing well or the lease is committed to a unitized area within which production is occurring). It is the non-producing leases which would potentially be affected by the alternatives, but only at the time the lease expires, and assuming no oil or gas production is established on the lease. Producing leases do not expire and therefore would be unaffected by any of the alternatives.

Across the planning area, there are about 160 non-producing leases covering 159,000 acres. This represents about 5% of the public mineral estate in the planning area. Most of the non-producing leases are in the Phillips and Valley RAs (60% and 25%, respectively). The balance is spread across counties in the Judith RA (Chouteau, Fergus, Judith Basin, and Petroleum Counties). Overall across the planning area, the majority of non-producing leases (about two-thirds) will expire between 1997 and 2000. A few will expire between 2000 and 2002, and the balance are scheduled to expire between 2004 and 2007.

The lease rental rate for the first five years of a non-producing lease is \$1.50/acre and \$2.00/acre thereafter. Current annual payments across the study area range from approximately \$239,000 (assuming all leases are subject to \$1.50/acre payments) to \$318,000 (assuming \$2.00/acre payments). In addition, at the time of leasing, if the lease was issued competitively a one-time bonus bid would have been paid. In fiscal year 1995, about \$64,000 in bonus bids/1st year rents were paid on new leases in the planning area. Combining annual rent payments and bonus bids, revenue from non-producing leases totaled \$303,000 to \$382,000. About one-half of this revenue (\$152,000 to \$191,000 for fiscal year 1995) would be returned to the state which in turn would be distributed to schools by the Office of Public Instruction. Some of this revenue would be returned to counties in the planning area but not necessarily in the same proportion as it was collected. This distribution of receipts assumes leases would be on public domain lands which make up the vast majority of non-producing leases (as opposed to acquired lands which have a different distribution of receipts).

Between 1990 and 1995 fourteen exploratory wells have been drilled in the planning area on all types of land ownership (i.e. federal and nonfederal), about three wells per year (Montana Department of Natural Resources and Conservation (DNRC), various years). None of these wells contained oil or gas discoveries. Only five of these wells were drilled on public land, an average of one per year. This level of activity is below the estimated ten exploratory wells per year projected in the final Judith-Valley-Phillips RMP/EIS. This lower level of exploration activity or a slightly higher level than the current drilling trend is expected to continue into the foreseeable future, absent any sustained changes in market conditions that could spur increased interest in exploration.

Leasing interest in the planning area has been relatively low over the past decade due to unfavorable oil prices. However, oil prices have been increasing very recently which may increase interest in leasing and exploration, depending on how long the upward trend in prices continues. Also, the recently-completed Express Pipeline through the Judith Resource Area is generating increased leasing activity in Chouteau and Judith Basin Counties.

SOCIAL CONDITIONS

Environmental Justice

Federal agencies are required to identify and address, as appropriate, “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” (Executive Order 12898). During the course of this analysis, the BLM considered all public input from persons or groups regardless of age, race, income status, or other social/economic characteristics.

The composition of the potentially affected population in the planning area shows that minority and low-income populations are present in the area affected by the alternatives. The highest proportions of minorities occur in Phillips County which is 8% percent American Indian, Eskimo or Aleut, and Valley County which is 9% American Indian, Eskimo or Aleut. The 1990 Census revealed poverty levels in the planning area to be similar to the State as a whole except for Petroleum County where the poverty level was 24% compared to 12% for the State.

A review of the final Judith-Valley-Phillips RMP/EIS and Alternatives F and G in the supplemental EIS does not indicate disproportionately high and adverse effects on minority and low-income populations. None of the alternatives would result in changes in these demographics or

affect the poverty status of these people. Environmental justice is not an issue for this supplemental EIS.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Areas of critical environmental concern (ACECs) are public lands that possess special values and may need management emphasis to protect or preserve those values. These areas have scenic values, rare plant communities, cultural sites, rare geologic features, threatened or endangered species habitat, cave resources or archaeological resources that qualify them for study as potential ACECs. The Judith Mountains Scenic Area, Acid Shale-Pine Forest, Square Butte Outstanding Natural Area, Collar Gulch, Azure Cave, Big Bend or the Milk River, and prairie dog towns within the Prairie Dog 7km Complex were designated ACECs through the Judith-Valley-Phillips RMP (BLM, 1994). These areas are discussed in the final Judith-Valley-Phillips RMP/EIS (BLM, 1992).

Three other areas have been nominated for consideration as ACECs (Little Rocky Mountains, Saddle Butte, and Old Scraggy Peak) and are currently undergoing evaluation by the BLM to determine if they qualify for further consideration as potential ACECs. Two other areas, the Bitter Creek WSA and Mountain Plover, meet the criteria for further consideration as ACECs and will be addressed through a plan amendment to the Judith-Valley-Phillips RMP.

Mixed Grass Prairie (Bitter Creek WSA)

The Mixed Grass Prairie area (350,000 acres), located in north Valley County, was nominated for its natural integrity, scenic values, and vegetation and on the basis that it is one of the largest and most intact sections of prairie remaining in the United States. The BLM evaluated this nomination to determine if it meets both the relevance and importance criteria as outlined in the BLM’s procedural guidance for ACECs (BLM Manual 1613). The entire nomination area was found to be relevant in terms of the scenic, cultural, and wildlife resources. In addition, two areas of approximately 100,000 acres in size were found relevant from a natural process or systems perspective. However, only the Bitter Creek WSA (59,660 acres) was found to meet the importance criteria due to the scenic diversity and variety of vegetation types and wildlife habitats. The Bitter Creek WSA does qualify for further consideration as an ACEC.

Little Rocky Mountains

The Little Rocky Mountains (19,840 acres) in the Phillips RA was nominated for consideration as an ACEC because of its Native American cultural and historic values.

Saddle Butte

Saddle Butte (875 acres) located in the Little Rocky Mountains in the Phillips RA, was nominated for consideration as an ACEC due to unique vegetation communities. A savannah community, classified as Douglas Fir/little bluestem, is located on the upper southeast slopes of Saddle Butte. This plant association was previously identified as a rare community by the Montana National Heritage Program (MNHP). Recently, the MNHP reevaluated this association and removed it from the MNHP State Classification list (Cooper, 1995).

Old Scraggy Peak

Old Scraggy Peak (2,080 acres) located in the Little Rocky Mountains in the Phillips RA, was nominated for consideration as an ACEC for Native American cultural and historic values.

Mountain Plover

The Mountain Plover nomination (9,600 acres) located in south Valley County, was nominated for the mountain plover habitat values. The area provides habitat for the mountain plover and is not associated with black-tailed prairie dogs. This is the natural habitat for the plover and not biologically created by prairie dogs. This is one of three documented breeding sites in Montana and may represent the second major population in the State. Knowles, 1991, reviewed the record for mountain plover sightings in this area and found 123 observations of 314 birds since 1978. The BLM determined in 1992 that this area does qualify for further consideration as an ACEC.

CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter describes the environmental, economic and social consequences of implementing the alternatives presented in Chapter 2. The impacts were identified and evaluated by an interdisciplinary team of resource specialists.

This chapter quantifies the specific impacts, where possible, and discusses where the impact would occur. The significance of the impact, including magnitude, duration and incidence are discussed where possible. National, regional or local importance is also discussed in some instances. The environmental impacts of the alternatives are summarized in Table S.2 in the Summary at the beginning of this document.

ANALYSIS ASSUMPTIONS AND GUIDELINES

The assumptions and guidelines used for analyzing the impacts of each alternative are listed below by general assumptions and environmental element. Environmental elements with no specific analysis assumptions and guidelines are not discussed.

General

The assessment of impacts assumes that regulations and policies would be observed and completed.

Oil and Gas

The reasonably foreseeable development scenario (RFD) for oil and gas, contained in Appendix B of the final Judith-Valley-Phillips RMP/EIS (BLM, 1992), is the basis for assessing cumulative impacts from oil and gas leasing and development. The RFD discusses the general development process for extracting oil and gas and projects levels of anticipated activity.

Based on the history of past drilling and foreseeable development potential in the planning area, activity over the next decade could include the drilling of at least 50 federal wells a year. The majority of this drilling would take place as

additional wells are added to the existing gas producing fields. Some exploration for new oil fields would also be involved but it is not anticipated that new discoveries would be made. In addition to the drilling of gas field development wells and some wildcat oil wells, there would be activity from the plugging of abandoned wells. It is anticipated that producing wells would be depleted and subsequently plugged and abandoned in both the gas producing and oil producing areas. It is not possible to predict the exact number of the wells which would be abandoned at this time. There are numerous factors which determine when and how many wells could be abandoned.

Economic conditions within the oil industry resulted in a decline in the number of active exploratory wells and the number of developmental wells. A turn around in the oil industry or an increase in the price of oil purchased from abroad, would spur an increase in the demand for domestic production. This would result in an increase in the number of wells drilled and could lead to renewed efforts to recover additional reserves from existing fields in the planning area. On the contrary side, low oil prices and depressed economic conditions would result in an increase in the number of abandonments and a decrease in domestic exploration and development.

Economic

The estimates of regional impacts, such as secondary spending and employment effects, were derived using an economic-demographic model developed by the Department of Agriculture Economics of North Dakota State University (NDSU). This model is described in NDSU Agricultural Economics Miscellaneous Report No. 61, titled "Expansion and Adaptation of the North Dakota Economic-Demographic Assessment Model (NEDAM) for Montana: Technical Description" (1982). All dollar figures are in 1987 dollars, unless otherwise noted. Significant impacts which may occur are expressed in terms of the percentage of change from current conditions.

IMPACTS OF ALTERNATIVES

A - E

The impacts of Alternatives A through E are discussed in detail in the final Judith-Valley-Phillips RMP/EIS on pages 157 to 242 (BLM, 1992).

IMPACTS OF ALTERNATIVE F

Impacts to Oil and Gas

Approximately 68% of the BLM land within the planning area would be closed to oil and gas leasing. This includes 26% of the high oil and gas potential minerals and 74% of the moderate potential minerals (see Table 4.1). This would decrease the opportunities for oil and gas exploration and development.

About 1,081,487 acres of BLM land (32%) would be open to oil and gas leasing with stipulations.

Impacts to Hardrock Minerals

Oil and gas leasing and development would not impact other mineral exploration and development. Increased mineral material needs for road work and general construction purposes would occur in areas with oil and gas development.

Impacts to Air and Water Quality

Air quality would be impacted in the immediate area of active wells where venting or flaring occurs but this would not be significant. H₂S gas could pose a potential hazard to workers and animals near stored crude oil or gas lines where accidental inhalation of toxic vapors could occur. Standard safety procedures minimize this risk.

Oil and gas development has the potential to impact the groundwater resources through cross contamination of aquifers or introduction of drilling fluids into the wellbore. Contaminates encountered in the wellbore could potentially impact surface waters. Onshore Oil and Gas Orders 1

and 2 provide regulations to operators and drillers which protect contamination of surface and ground waters. The orders require surface casing and cementing of the wellbore to prevent cross contamination of any fresh water aquifers. A cement bond log is also required to prevent migration of fluids and/or gasses and to ensure protection of all surface water. Drilling muds can not contain any hazardous materials. Surface disposal pits will be lined when the quality of produced water would degrade surface waters or shallow ground waters. Abandoned wellbores would be plugged to prevent migration of fluids and/or gasses.

Impacts to Soil and Vegetation

Soil on the immediate site of well pads would be subject to short-term erosion, with reclamation restoring protective ground cover within 2 to 4 years on most soils. There would be the potential for local soil contamination from oil leaks or spills at the few anticipated oil exploration wells.

New roads and pipelines would create short-term (less than 5 years) vegetation losses and a low potential for increased soil erosion because of design standards which minimize erosion and require revegetation of disturbed areas. Reclaimed sites may be more productive than adjacent undisturbed areas due to tillage that increases water infiltration and fertility.

Protection would be provided for soils on slopes greater than 30% and for floodplain and riparian areas. This would reduce potential adverse impacts, soil erosion from disturbance on steep slopes and water contamination from pollutant runoff into streams and rivers.

Accelerated soil erosion from wind or water would not occur within areas closed to oil and gas leasing. In addition, adjacent land would not be impacted by accelerated soil erosion from directional drilling.

TABLE 4.1
BLM MINERAL ESTATE SUBJECT TO STANDARD LEASE TERMS ONLY, STIPULATIONS,
NO SURFACE OCCUPANCY OR CLOSED TO OIL AND GAS LEASING IN HIGH AND MODERATE
OIL AND GAS DEVELOPMENT POTENTIAL AREAS - ALTERNATIVE F

Mineral Potential	Standard Terms Only	VRM Class III & IV Stipulation Only	Other Stipulations	No Surface Occupancy	Closed
High	0	102,866	208,454	1,280	109,760
Moderate	0	201,850	565,917	1,120	2,196,440
Total	0	304,716	774,371	2,400	2,306,200

Impacts to Livestock Grazing Management

No impact to livestock grazing management.

Impacts to Wildlife

Wildlife resources would not be impacted in areas closed to oil and gas leasing (2,306,200 acres).

Impacts to Forestry

No impact to forestry.

Impacts to Cultural Resources

In most cases, direct impacts to cultural resources could be avoided since this alternative relies heavily on closing areas to oil and gas leasing and a Notice and the potential for a No Surface Occupancy restriction on cultural properties of a significant nature. Inventorying lands could increase the amount of cultural resource site information. Additional development could create adverse impacts for cultural properties through additional disturbance. In most cases, these impacts can be mitigated through avoidance or information recovery.

Impacts to Recreation

Oil and gas exploration and development activities could have a temporary impact on recreation. Upgrading roads, new road construction and pipeline construction would displace some wildlife and affect hunting activities. The quality of recreation would be lessened by the intrusion of oil and gas activities in some areas while upgrading roads would provide improved access. However the incidence of this occurring is anticipated to be low since most public land would be closed to oil and gas leasing. In addition, visitors who are effected are likely to use other public lands in their vicinity that offer the same or similar opportunities.

Impacts to Visual Resources

In general, exploration, development and production would affect line, form, color and texture of the natural landscape in oil and gas fields. Impacts from seismic activity would be short term. Although there would be impacts from new well production in producing areas, the long-term impacts would be minimal. This is due to the localized nature of oil and gas development and production, the temporary nature

of disturbing activities, reclamation requirements, and VRM requirements.

Impacts to Economic Conditions

This alternative would have no effect on currently- producing leases and current oil and gas production levels would not be affected. Cat Creek (oil) and the Bowdoin area (gas) are expected to continue producing for the next 50 years. Thus, even without further discoveries, production, employment, royalties, and other government revenue is expected to remain steady for the foreseeable future. However, opportunities for new discoveries on public land would be greatly diminished since 68% of the BLM mineral estate in the planning area would be closed to leasing.

Potentially-affected leases are those non-producing leases which are within the boundaries identified in this EIS as no-lease areas. The non-producing leases primarily affected are those in the Phillips and Valley Resources areas, about 80 percent to 90 percent of all leases. The Cat Creek area in Petroleum County would remain available for leasing, so new exploration and development activity would still be a possibility.

The loss of Federal lease rental revenue could reach \$239,000 to \$318,000 by the year 2007 as current leases expire and no new leases are issued (and assuming no discoveries occur). One half of this revenue is returned to the state for public education, so the loss to the state would total \$120,000 to \$159,000. Additionally, opportunities for increased bonus bids, rents, and ultimately, royalties are foregone as leased and currently unleased areas are closed to leasing. This distribution of receipts assumes leases would be on public domain lands which make up the vast majority of non-producing leases (as opposed to acquired lands which have a different distribution of receipts).

An additional impact of a no-leasing decision could be increased drilling activity between now and 2007 as leaseholders anticipate their leases may expire and areas subsequently become unavailable for lease. This could cause a temporary upsurge in drilling-related economic activity if leaseholders consider this round of drilling to be their last opportunity at discovery.

As public lands in the planning area become unavailable for leasing, there may be an increase in demand for leasing on adjacent private lands. Increased leasing on private lands could increase revenue to private landowners on two levels: first, simply from the increased demand for leasing areas and, second, the potential for landowners to increase rental rates to lessees due to the reduced supply of acreage available.

With little exploration activity currently occurring, there is no appreciable impact to recreation-related economic activity across the planning area. Under no-lease, some areas would remain open to leasing under a range of restrictions, so the potential for additional leasing and exploration activity does exist, and thus the potential for additional adverse impacts to recreation-related economic activity. However, over time the potential for leasing and exploration would diminish as leases expire and those areas become unavailable for leasing. Where exploration and, potentially, development occurs, there could be negative effects to recreation-related economic activity, but at the anticipated level of oil and gas activity for foreseeable future, the impact is expected to be minor.

Impacts to Social Conditions

No impact to social conditions.

Impacts to Areas of Critical Environmental Concern

This section considers the potential impacts to the existing and nominated ACECs based on the impact analysis in the other resource sections. The impacts from this alternative would not affect the existing ACECs or the potential designation of the five nominations.

Summary of the Cumulative Effects

This alternative provides the maximum protection for surface resources. It would not be favorable to oil and gas exploration and development. It relies heavily on discretionary closures to protect surface resources. Only 32% of the high and moderate development potential land would be available for oil and gas exploration and development with stipulations or standard lease terms.

The cumulative effects on soil and vegetation would be positive. Protecting sensitive areas from oil and gas activities would reduce the potential for soil erosion and vegetation damage.

There would be positive impacts of protecting wildlife during oil and gas leasing. Overall, the cumulative effects on wildlife would be positive.

Mitigation measures normally employed for archaeological and historic cultural properties are geared to remove information from the ground or to document and record the resource and then analyze that information. Cultural re-

sources which contain religious values cannot as a rule be mitigated. As a result, if sites are present which have these values residual impacts would occur. Also, due to the unique nature of these archaeological resources, there are a limited number of these resources. Archaeological mitigation may be able to recover much information about these resources, but because of the small number of such resources the cumulative impacts would not be measurable.

Unavoidable Adverse Impacts

This section summarizes the adverse impacts that would remain if the alternatives are implemented and the mitigating measures developed by BLM are applied. Only those environmental elements with adverse impacts are discussed.

Oil and Gas

Large areas closed to leasing would be a negative impact to the oil and gas industry.

Economic Conditions

Some oil and gas exploration and development may be foregone resulting in lost opportunities for potential future economic activity and tax revenues.

Short-Term Use/Long-Term Productivity

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the alternative. Only those environmental elements affected are discussed.

Visual Resources

In the long-term, visual resources could be negatively impacted in site specific areas from oil and gas activities.

Irreversible or Irretrievable Resource Commitments

This section identifies the extent to which the alternative would irreversibly limit potential uses of the land and resources or irretrievably use, consume, destroy or degrade those resources. Only those environmental elements with irreversible or irretrievable resource commitments are discussed.

Oil and Gas

This alternative could result in lost revenue from drainage by fee and state oil and gas wells. In cases where the Federal land could not be committed to an agreement there would be no option to drill a protective well to offset the offending well. Because of the shallow drilling depth to hydrocarbon reservoirs and moderate production rates in the planning area, expensive technology like directional and horizontal drilling is not viable.

IMPACTS OF ALTERNATIVE G (Preferred Alternative)

Impacts to Oil and Gas

The majority of the BLM land (74%) with high development potential would be available for oil and gas leasing with standard terms and a VRM Class II and III stipulation (see Table 4.2). This would provide opportunities for oil and gas exploration and development in areas with high mineral potential with minimum permitting delay and administrative processing.

There would be moderate development potential land (61%) subject to stipulations and no surface occupancy restrictions which would be a minor impact to oil gas exploration and development opportunities.

Impacts to Hardrock Minerals

Oil and gas leasing and development would not impact other mineral exploration and development. Increased mineral material needs for road work and general construction purposes would occur in areas with oil and gas development.

Impacts to Air and Water Quality

Air quality would be impacted in the immediate area of active wells where venting or flaring occurs but this would not be significant. H₂S gas could pose a potential hazard to workers and animals near stored crude oil or gas lines where accidental inhalation of toxic vapors could occur. Standard safety procedures minimize this risk.

Oil and gas development has the potential to impact the groundwater resources through cross contamination of aquifers or introduction of drilling fluids into the wellbore. Contaminates encountered in the wellbore could potentially impact surface waters. Onshore Oil and Gas Orders 1 and 2 provide regulations to operators and drillers which protect contamination of surface casing and cementing of the wellbore to prevent cross contamination of any fresh water aquifers. A cement bond log is also required to prevent migration of fluids and/or gasses and to ensure protection of all surface water. Drilling muds can not contain any hazardous materials. Surface disposal pits will be lined when the quality of produced water would degrade surface waters or shallow ground waters. Abandoned wellbores would be plugged to prevent migration of fluids and/or gasses.

Impacts to Soil and Vegetation

Soil on the immediate site of well pads would be subject to short-term erosion, with reclamation restoring protective ground cover within 2 to 4 years on most soils. Because of the topography and depth of the wells (1,500 to 2,200 feet) surface disturbance is limited to about 1.5 to 2.5 acres per location or about 75 to 125 acres per year for the planning area. There would be the potential for local soil contamination from oil leaks or spills at the few anticipated oil exploration wells.

TABLE 4.2
BLM MINERAL ESTATE SUBJECT TO STANDARD LEASE TERMS ONLY, STIPULATIONS,
NO SURFACE OCCUPANCY OR CLOSED TO OIL AND GAS LEASING IN HIGH AND MODERATE
OIL AND GAS DEVELOPMENT POTENTIAL AREAS - ALTERNATIVE G

Mineral Potential	Standard Terms Only	VRM Class III & IV Stipulation Only	Other Stipulations	No Surface Occupancy	Closed
High	0	312,120	102,560	2,530	5,150
Moderate	0	1,025,582	1,784,389	20,224	135,132
Total	0	1,337,702	1,886,949	22,754	140,282

New roads and pipelines would create short-term (less than 5 years) vegetation losses and a low potential for increased soil erosion because of design standards which minimize erosion and require revegetation of disturbed areas. Reclaimed sites may be more productive than adjacent undisturbed areas due to tillage that increases water infiltration and fertility.

Protection would be provided for soils on slopes greater than 30% and for floodplain and riparian areas. This would reduce potential adverse impacts, soil erosion from disturbance on steep slopes and water contamination from pollutant runoff into streams and rivers.

Impacts to Livestock Grazing Management

No impact to livestock grazing management.

Impacts to Wildlife

Wildlife resources would be protected from oil and gas exploration and development in areas closed to oil and gas leasing (140,282 acres) and most wildlife habitat would be protected by oil and gas stipulations (1,804,613 acres). The only wildlife habitat that would not be completely protected is grouse nesting zones. Grouse nest within 1.5 to 2 miles of the mating ground. Disturbance during the nesting season could cause nest abandonment, however, grouse would re-nest as long as the disturbance is not persistent. Even though the entire grouse nesting habitat is not protected from disturbance, oil and gas development would not impact grouse nesting in the long term. Overall, oil and gas stipulations would protect most wildlife habitat.

Impacts to Forestry

No impact to forestry.

Impacts to Cultural Resources

Cultural resources would be protected by using standard lease terms, the Notice (MT-3101-1), and the potential for a no surface occupancy restriction on cultural properties of a significant nature. In most cases, direct impacts to cultural resources could be avoided. Inventorying lands could increase the amount of cultural resource site information. Additional development could create adverse impacts for cultural properties through additional disturbance. Some cultural properties could be impacted but in most cases impacts could be mitigated through avoidance or information recovery.

Impacts to Recreation

Oil and gas exploration and development activities could have a temporary impact on recreation. Upgrading roads, new road construction and pipeline construction would displace some wildlife and affect hunting activities. The quality of recreation would be lessened by the intrusion of oil and gas activities in some areas. Overall, the impact to recreation would not be significant.

Impacts to Visual Resources

In general, exploration, development and production would affect line, form, color and texture of the natural landscape in oil and gas fields. Impacts from seismic activity would be short term. Although there would be impacts from new well production in producing areas, the long-term impacts would be minimal. This is due to the localized nature of oil and gas development and production, the temporary nature of disturbing activities, reclamation requirements, and VRM requirements.

Impacts to Economic Conditions

There would be no significant impacts to economic conditions. However, a new oil or gas discovery would increase economic activity in the short-term during field development and in the long-term during production. Unless a major discovery occurs, development activity would be on a small scale and would not cause significant impacts. Production revenue would also increase regional economic activity, primarily in the petroleum and natural gas extraction, construction and transportation sectors. Additionally, there may be a negligible increase in employment but, again, this would depend on the size of the discovery.

Impacts to Social Conditions

No impact to social conditions.

Impacts to Areas of Critical Environmental Concern

This alternative would not affect the existing ACECs or the potential designation of the five ACEC nominations.

Summary of the Cumulative Effects

The cumulative effects on soil and vegetation would be positive. Protecting sensitive areas from oil and gas activities would reduce the potential for soil erosion and vegetation damage.

There would be positive impacts of protecting wildlife during oil and gas leasing. Overall, the cumulative effects on wildlife would be positive.

Mitigation measures normally employed for archaeological and historic cultural properties are geared to remove information from the ground or to document and record the resource. Cultural resources which contain religious values cannot as a rule be mitigated. As a result, if sites are present which have these values residual impacts would occur. Also, due to the unique nature of these archaeological resources, there are a limited number of these resources. Archaeological mitigation may be able to recover much information about these resources, but because of the small

number of such resources the cumulative impacts would not be measurable.

Unavoidable Adverse Impacts

No unavoidable adverse impacts.

Short-Term Use/Long-Term Productivity

There would be no trade-offs between short-term use and long-term productivity.

Irreversible or Irretrievable Resource Commitments

There would be no irreversible or irretrievable commitment of resources.

CHAPTER FIVE

CONSULTATION & COORDINATION

PUBLIC INVOLVEMENT

Consultation and coordination have been important parts of the Judith-Valley-Phillips planning effort since its beginning in 1988. Consultation and coordination is discussed in Chapter 5 of the final RMP/EIS (BLM 1992). Additional public involvement since the final Judith-Valley-Phillips RMP/EIS includes a notice of intent (NOI) to prepare a supplemental EIS published in the Federal Register on August 9, 1996, and an informational letter to the public in September 1996 on preparation of the supplement and a tentative alternative.

DISTRIBUTION LIST

The following is a partial list of organizations and agencies that received this document.

County Commissioners and Boards of Planning

Chouteau County Commissioners
Fergus County Commissioners
Judith Basin County Commissioners
Petroleum County Commissioners
Phillips County Commissioners
Valley County Commissioners

Montana Chamber of Commerce
Glasgow Chamber of Commerce
Lewistown Chamber of Commerce
Malta Chamber of Commerce

Chouteau County Conservation District
Fergus County Conservation District
Judith Basin County Conservation District
Petroleum County Conservation District
Phillips County Conservation District
Valley County Conservation District

Libraries

Carnegie Public Library
Chouteau County Library
Glasgow City/County Library
Judith Basin County Library
Parmly Billings Library
Petroleum County Community Library
Phillips County Public Library

State

Bureau of Mines and Geology
Department of Agriculture
Department of Environmental Quality
Fish, Wildlife and Parks
Natural Resources and Conservation
State Historic Preservation Office

Congressional

Honorable Conrad Burns
Honorable Max Baucus
Honorable Rick Hill

Federal

Advisory Council on Historic Preservation
Bowdoin National Wildlife Refuge
Bureau of Indian Affairs
 Blackfeet Agency
 Crow Agency
 Fort Belknap Agency
 Fort Peck Agency
 Northern Cheyenne Agency
 Rocky Boy Agency
 Wind River Agency
Bureau of Reclamation
CMR National Wildlife Refuge
Department of Energy
Minerals Management Service
National Park Service
Natural Resources Conservation Service
US Army Corps of Engineers
US Environmental Protection Agency
US Fish and Wildlife Service
US Forest Service
US Geological Survey

Tribal Councils and Committees

Arapahoe Business Council
Assiniboine/Sioux Tribal Council
Blackfeet Tribal Business Council
Chippewa Cree Business Committee
Crow Tribal Council
Fort Belknap Community Council
Fort Peck Tribal Council
Northern Cheyenne Tribal Council
Shoshone Business Council

Organizations

American Fisheries Society
American Rivers
American Wildlands
Audubon Society
The Big Open Project
Billings Motorcycle Club
Central Montana Wildlands Association
Consolidated State Grazing Districts
Cottonwood Grazing Association
Defenders of Wildlife
The Ecology Center
Flathead Wildlife Inc
Greater Yellowstone Coalition
Independent Petroleum Associates of Mountain States
Indian Butte State Grazing District
Milk River Land & Cattle Association
Minerals Exploration Coalition
Montana Audubon Council
Montana Environmental Information Center
Montana Geological Society
Montana Native Plant Society
Montana Petroleum Association
Montana Public Lands Council
Montana Wilderness Association
Montana Wildlands Coalition
Montana Wildlife Federation
National Wildlife Federation
Natural Resources Defense Council
Northern Plains Resource Council
Northwest Mining Association
Phillips County North and South Grazing Districts
Predator Project
Rocky Mountain Mineral Law Foundation
Rocky Mountain Oil and Gas Association
Rocky Mountain Overthrust Energy Foundation
Sierra Club
Square Butte Grazing Association
Upper Missouri Trust
Western Environmental Trade Association
The Wilderness Society
Wildlife Society
Winifred FFA Chapter
Wittmayer Grazing Association

Businesses

Amoco Production Company
Antelope Ranch
Arco Oil & Gas Company
Balcron Oil
Bar OK Ranch Company
Barthelmess Ranch Inc
Bear Paw Sentinel

Big Blue Sapphire Company
Big Flat Electric Coop Inc
Billings Gazette
Black Ranch Inc
Canyon Resources Corporation
Casino Creek Concrete
Cold Mountains-Cold Rivers Inc
Cooper Petroleum
Costin Ranch Inc
Cyprus Minerals
Dateline Drilling
Double O Ranch Inc
Elenburg Exploration Inc
Exxon USA
Falcon Oil & Gas Company Inc
FMP Operating Company
Gold Cup Exploration Inc
Grantier Livestock Inc
Great Falls Tribune
Havre Answering Service
Integrated Planning Services
Jenni Ranch
Jireh Consulting Services
KLCM-FM/KXLO-AM
KLTZ/KLAN Radio
KMMR FM Radio
Lazy JD Cattle Company
E K Lehmann and Associates
Lewistown Insurance
Lewistown News Argus
Malta Irrigation District
Marathon Oil Company
McColly Ranch Inc
Meridian Oil Inc
Montana Oil Journal
Montana Power Company
Mortenson Farms Inc
Northern Ag Service
Pegasus Gold Corporation
Permits West Inc
Phillips County News
Phillips Petroleum Company
PIC Technologies Inc
Powers Elevation Company
Robinson Ranch
Sagebrush Photography
Samedan Oil Corporation
Schlumberger Well Service
Teigen Land and Livestock
Texaco Inc
Western technology and Engineering Inc
Whiting Petroleum Corporation
Williston Basin Interstate Pipeline
Y 3 Cattle Company
Zortman Mining Inc

The draft Judith-Valley-Phillips Oil and Gas Supplemental RMP/EIS was also mailed to about 200 individuals.

LIST OF PREPARERS

The supplement to the Judith-Valley-Phillips RMP/EIS was prepared and reviewed by a BLM interdisciplinary team of resource specialists from the Judith Resource Area, Valley Resource Area, Phillips Resource Area, and Lewistown District Office.

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GLOSSARY

AIRSHED.

Class I Area. Any area which is designated for the most stringent degree of protection from future degradation of air quality. The Clean Air Act designates as mandatory Class I areas each national park over 6,000 acres and each national wilderness area over 5,000 acres.

Class II Area. Any area cleaner than federal air quality standards which is designated for a moderate degree of protection from future air quality degradation. Moderate increases in new pollution may be permitted in a Class II area.

Class III Area. Any area cleaner than federal air quality standards which is designated for a lesser degree of protection from future air quality degradation. Significant increases in new pollution may be permitted in Class III area.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC). An area where special management is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes; or to protect life and safety from natural hazards.

CRITICAL WILDLIFE HABITAT. Any habitat, which if lost, would appreciably decrease the likelihood of the survival and recovery of a threatened or endangered species, or a distinct segment of its population. Critical habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion. Critical habitat must be officially designated as such by the Fish and Wildlife Service or the National Marine Fisheries Service.

CRUCIAL WILDLIFE HABITAT. Parts of the habitat necessary to sustain a wildlife population at critical periods of its life cycle. This is often a limiting factor on the population, such as breeding habitat, and winter habitat.

CULTURAL PROPERTY. A definite location of past human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) or traditional cultural or religious importance to specified social and/or cultural groups.

CULTURAL RESOURCES. A term that includes items of historical, archaeological or architectural significance which are fragile, limited and non-renewable portions of the human environment.

DEVELOPED RECREATION SITE. A site developed primarily to accommodate specific intensive use activities or grouping of activities such as camping, picnicking, boating, swimming, winter sports, etc. These sites include permanent facilities such as roads, trails, toilets, and other facilities needed to accommodate recreation use over the long term.

ENDANGERED OR THREATENED SPECIES. Determined for plants and animals by one or a combination of the following factors:

1. The present or threatened destruction, modification or curtailment of a species habitat or range.
2. Over-utilization of a species for commercial, sporting, scientific or educational purposes.
3. Disease or predation of the species.
4. The inadequacy of existing regulatory mechanisms.
5. Other natural or human caused factors affecting a species' continued existence.

ENVIRONMENTAL IMPACT STATEMENT (EIS). A detailed written statement as required by Sec. 102(2) (C) of the National Environmental Protection Act.

EROSION SUSCEPTIBILITY. The susceptibility of a soil to erosion when no cover is present. The rate of soil displacement depends on the physical properties of the soil, rainfall intensity, and slope gradient.

EXCEPTION. This is one time lifting of an oil and gas stipulation to allow a permitting activity for a specific proposal. It has no permanent effect on the lease stipulation and would not constitute a substantial change to the stipulation and requires not posting.

EXTENSIVE RECREATION MANAGEMENT AREA. BLM administrative units where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured type of recreation activities. They may contain recreation sites.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA). Public Law 94-579, October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy and basic management guidance.

GROUND WATER. Water contained in pore spaces of consolidated and unconsolidated subsurface material.

INTERIM MANAGEMENT POLICY AND GUIDELINES FOR LANDS UNDER WILDERNESS REVIEW (IMP). A BLM Handbook H-8550-1 dated November 10, 1987, which defines the policy for management of Wilderness Study Areas until a final determination on wilderness designation is made by Congress.

LEASABLE MINERALS. Those minerals or materials that can be leased from the federal government. Includes oil and gas, coal, phosphate, sodium, potash, and oil shale.

MITIGATION MEASURES. Methods or procedures committed to by BLM for the purpose of reducing or lessening the impacts of an action.

MODIFICATION. This is a change to an oil and gas stipulation which either temporarily suspends the stipulation requirement or permanently lifts the application of the stipulation on a given portion of the lease. It may or may not require posting based on whether or not the change is determined to be substantial by the authorized officer.

MULTIPLE USE. Balanced management of the various surface and subsurface resources, without permanent impairment of the productivity of the land, that will best meet present and future needs.

PLANNING CRITERIA. The factors used to guide development of the resource management plan, or revision, to ensure that it is tailored to the issue previously identified and to ensure that unnecessary data collection and analysis are avoided. Planning criteria are developed to guide the collection and use of inventory data and information, the analysis of the management situation, the design and formulation of alternatives, the estimation of the effects of alternatives, the evaluation of alternatives, and the selection of the preferred alternative.

PUBLIC LANDS. Any land and interest in land (outside of Alaska) owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

PUBLIC PARTICIPATION. Part of BLM's planning system that provides the opportunity for citizens as individuals or groups to express local, regional, and national

perspectives and concerns. This includes public meetings, hearings, or advisory boards or panels that may review resource management proposals and offer suggestions or criticisms for the various alternatives considered.

RECREATION AND PUBLIC PURPOSES ACT (R&PP). This act authorizes the Secretary of the Interior to lease or convey public lands for recreational and public purposes under specified conditions of states or their political subdivisions, and to nonprofit corporations and associations.

RESOURCE MANAGEMENT PLAN. The system that provides a step-by-step process for considering multiple resource values, resolving conflicts, and making resource management decisions.

RESOURCE OBJECTIVES. The desired state or condition that a resource management policy or program is designed to achieve. A goal is usually not quantifiable and may not have a specific date by which it is to be completed. Goals are the basis from which objectives are developed.

RIPARIAN AREA. An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence or vegetation dependent upon free water in the soil.

RUNOFF. The water that flows on the land surface from an area in response to rainfall or snowmelt. As used in this EIS, runoff from an area becomes streamflow when it reaches a channel.

SEDIMENT. Soil, rock particles and organic or other debris carried from one place to another by wind, water or gravity.

SEDIMENTATION. The action or process of deposition of material borne by water, wind or glacier.

SENSITIVE SPECIES. Animals/plants not yet listed as endangered or threatened, but that are undergoing a status review. This may include animals/plants whose populations are consistently and widely dispersed or whose ranges are restricted to a few localities, so that any major habitat change could lead to extinction. A species that is particularly sensitive to some external disturbance factors.

SOIL. The unconsolidated mineral material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

SOIL MOISTURE. Water held in the root zone by capillary action. Part of the soil moisture is available to plants, part is held too tightly by capillary or molecular forces to be removed by plants.

SPLIT ESTATE. Surface and mineral estates of a given area in different ownerships. Frequently, the surface is private while the minerals are federal.

STIPULATION. A provision that modified standard lease rights and is attached to and made part of a lease.

SPECIES OF SPECIAL INTEREST OR CONCERN. Species not yet listed as “endangered or threatened” but whose status is being reviewed because of their widely dispersed populations or their restricted ranges. A species whose population is particularly sensitive to external disturbance.

STABILIZED. To reduce accelerated erosion rates to natural geologic erosion rates.

STREAMBANK (and CHANNEL) EROSION. This is the removal and transport of material by concentrated flows.

THREATENED SPECIES. A species that the Secretary of Interior has determined to be likely to become endangered within the foreseeable future throughout all or most of its range. See also “Endangered or Threatened Species.”

TOTAL DISSOLVED SOLIDS. The dry weight of dissolved material, organic and inorganic, contained in water.

UNDEVELOPED RECREATION SITE. A site which is used for intensive activities such as camping or picnicking but was not specifically developed for that purpose. The facilities are usually temporary in nature, designed to minimize resource damage and provide for short-term use.

VISUAL RESOURCE MANAGEMENT CLASSES. The degree of acceptable visual changes within a characteristic landscape. A class is based upon the physical and sociological characteristics of any given homogeneous area and serves as a management objective.

WAIVER. The lifting of an oil and gas stipulation from a lease which constitutes a permanent revocation of the stipulation from that time forward. This is usually a substantial change and requires a 30 day posting of the action for public involvement before the permitting activity associated with the process can be approved.

WATER QUALITY. The chemical, physical and biological characteristics of water with respect to its suitability for a particular use.

WATERSHED. All lands which are enclosed by a continuous hydrologic drainage divide and lie upslope from a specified point on a stream.

WETLANDS. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and which, under normal circumstances, does support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include shallows, swamps, lakeshores, bogs, muskegs, wet meadows, estuaries, and riparian areas.

WILDERNESS STUDY AREA (WSA). An area determined to have wilderness characteristics. Suitable areas are recommended to the President and Congress for wilderness designation. These areas are an interim designation, valid until either designated as wilderness or released to multiple-use management.

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APPENDIX A

SPECIAL STIPULATION - BUREAU OF RECLAMATION

To avoid interference with recreation development and/or impacts to fish and wildlife habitat and to assist in preventing damage to any Bureau of Reclamation dams, reservoirs, canals, ditches, laterals, tunnels, and related facilities, and contamination of the water supply therein, the lessee agrees that the following conditions shall apply to all exploration and developmental activities and other operation of the works thereafter on lands covered by this lease:

1. Prior to commencement of any surface-disturbing work including drilling, access road work, and well location construction, a surface use and operations plan will be filed with the appropriate officials. A copy of this plan will be furnished to the Regional Director, Great Plains Region, Bureau of Reclamation, P.O. Box 36900, Billings, MT 59107-6900, for review and consent prior to approval of the plan. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources, including cultural resources, of the United States, its lessees, permittees, or licensees, and to provide for the restoration of the land surface and vegetation. The plan shall contain provisions as the Bureau of Reclamation may deem necessary to maintain proper management of the water, recreation, lands, structures, and resources, including cultural resources, within the prospecting, drilling, or construction area.

Drilling sites for all wells and associated investigations such as seismograph work shall be included in the above-mentioned surface use and operation plan.

If later explorations require departure from or additions to the approved plan, these revisions or amendments, together with a justification statement for proposed revisions, will be submitted for approval to the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

Any operations conducted in advance of approval of an original, revised, or amended prospecting plan, or which are not in accordance with an approved plan constitute a violation of the terms of this lease. The Bureau of Reclamation reserves the right to close down operations until such corrective action, as is deemed necessary, is taken by the lessee.

2. No occupancy of the surface of the following excluded areas is authorized by this lease. It is understood and agreed that the use of these areas for Bureau of Reclamation

purposes is superior to any other use. The excluded areas are:

- a. Within 500 feet on either side of the centerline of any and all roads or highways within the leased area.
- b. Within 200 feet on either side of the centerline of any and all trails within the leased area.
- c. Within 500 feet of the normal high-water line of any and all live streams in the leased area.
- d. Within 400 feet of any and all recreation developments within the leased area.
- e. Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the Bureau of Reclamation within the leased area.
- f. Within 200 feet of established crop fields, food plots, and tree/shrub plantings within the leased area.
- g. Within 200 feet of slopes steeper than a 2:1 gradient within the leased area.
- h. Within established rights-of-way of canals, laterals, and drainage ditches within the leased area.
- i. Within a minimum of 500 feet horizontal from the centerline of the facility or 50 feet from the outside toe of the canal, lateral, or drain embankment, whichever distance is greater, for irrigation facilities without clearly marked rights-of-way within the leased area.

3. No occupancy of the surface or surface drilling will be allowed in the following areas. In addition, no directional drilling will be allowed in the following areas. In addition, no directional drilling will be allowed that would intersect the subsurface zones delineated by a vertical plane in these areas.

- a. Within 1,000 feet of the maximum water surface, as defined in the Standing Operating Procedures (SOP), of any reservoirs and related facilities located within the leased area.

b. Within 2,000 feet of dam embankments and appurtenance structures such as spillway structures, outlet works, etc.

c. Within one-half (1/2) mile horizontal from the centerline of any tunnel within the leased area.

4. The distances stated in items 2 and 3 above are intended to be general indicators only. The Bureau of Reclamation reserves the right to revise these distances as needed to protect Bureau of Reclamation facilities.

5. The use of explosives in any manner shall be so controlled that the works and facilities of the United States, its successors and assigns will in no way be endangered or damaged. In this connection, an explosives use plan shall be submitted to and approved by the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

6. The lessee shall be liable for all damage to the property of the United States, its successors and assigns, resulting from the exploration, development, or operation

of the works contemplated by this lease, and shall further hold the United States, its successors and assigns, and its officers, agents, and employees, harmless from all claims of third parties for injury or damage sustained or in any way resulting from the exercise of the rights and privileges conferred by this lease.

7. The lessee shall be liable for all damage to crops or improvements any entryman, nonmineral applicant, or patentee, their successors and assigns, caused by or resulting from the drilling or other operations of the lessee, including reimbursement of any entryman or patentee, their successors and assigns, for all construction, operation, and maintenance charges becoming due on any portion of their said lands damaged as a result of the drilling or other operations of the lessee.

8. In addition to any other bond required under the provisions of this lease, the lessee shall provide such bond as the United States may at any time require for damages which may arise under the liability provisions of sections six (6) and seven (7) above.

APPENDIX B

OIL AND GAS LEASING AND DEVELOPMENT

This appendix provides the stipulations that would be applied under Alternatives F and G and supplements Appendix B from the final Judith-Valley-Phillips RMP/EIS (BLM, 1992).

Alternative G, the Preferred Alternative, would apply the BLM Montana oil and gas lease stipulations (IM No. MT-90-220, Change 2) with the following exceptions:

1) Grouse Leks and Grouse Nesting Zone

A. Grouse Leks: No surface occupancy for the lek (1/4 acre) rather than no surface occupancy within 1/4 mile of the lek.

B. Grouse Nesting Zone: Seasonal restriction on exploration from March 15 to June 15 for a distance of 1/4 mile from lek rather than surface use prohibited from March 1 to June 15 within 2 miles of a lek.

This stipulation provides protection for the lek and surrounding habitat during the period when grouse activity is occurring. The use of this time and distance requirement has worked well in the past, allowing for short-duration drilling while protecting important grouse habitat. Use of this level of protection has demonstrated that stipulations that are more restrictive or cover larger areas are not necessary to protect the species.

2) Designated Black-footed Ferret Reintroduction Areas: Controlled surface use for prairie dog towns within designated black-footed ferret areas.

The purpose of this stipulation is to preserve the prairie dog towns where the black-footed ferret would be reintroduced. The revised stipulation is an acceptable level of protection. It is preferable to no surface occupancy restrictions for the entire 7km Complex. The actual towns, while much smaller

than the 7km Complex, are fully adequate for ferret populations.

3) Ferruginous Hawks: Surface use is prohibited from March 1 to August 1 within 1.2 mile of raptor nest sties which have been active within last 2 years rather than surface occupancy and use prohibited all year.

The revised stipulation is consistent with the guidelines used in the West HiLine and Headwaters RMPs which border the planning area on the North and West making its use uniform throughout the Lewistown District. This stipulation can be implemented at the time of an onsite inspection for drilling permits and sundry notices which involve surface disturbance activity which would be disruptive to the nesting species. A stipulation which addresses occupied nests is more easily documented as to species and duration of use.

The historical activity in the planning area, associated with oil and gas exploration and development, involves shallow wells with small areas of surface disturbance and lasting for short duration. The proposed stipulation would afford adequate protection to the species.

4) Crucial Winter Range: Surface use is prohibited from December 1 to April 30 within crucial winter range rather than from December 1 to March 31.

The revised stipulation would provide protection for crucial winter range during severe winters.

5) Cultural Resources (Notice): The guidance would follow NTL-MSO-85-1 rather than an additional Notice on inventory requirements.

This would be consistent with the present Montana guidance for cultural resource protection related to oil and gas operations.

ATTACHMENT B.1

OIL AND GAS STIPULATIONS

ALTERNATIVE F

CONTROLLED SURFACE USE

Resource: Soils

Stipulation: Prior to surface disturbance on slopes over 30 percent, an engineering/reclamation plan must be approved by the authorized officer. Such plan must demonstrate how the following will be accomplished:

- Site productivity will be restored.
- Surface runoff will be adequately controlled.
- Off-site areas will be protected from accelerated erosion, such as rilling, gullying, piping, and mass wasting.
- Water quality and quantity will be in conformance with state and federal water quality laws.
- Surface-disturbing activities will not be conducted during extended wet periods.
- Construction will not be allowed when soils are frozen.

Objective: To maintain soil productivity, provide necessary protection to prevent excessive soil erosion on steep slopes, and to avoid areas subject to slope failure, mass wasting, piping, or having excessive reclamation problems.

Exception: None.

Modification: The area affected by this stipulation may be modified by the authorized officer if it is determined that portions of the area do not include slopes over 30 percent.

Waiver: This stipulation may be waived by the authorized officer if it is determined that the entire leasehold does not include slopes over 30 percent.

NO SURFACE OCCUPANCY

Resource: Riparian/Hydrology

Stipulation: Surface occupancy and use is prohibited within riparian areas, 100-year flood plains of major rivers, and on water bodies and streams.

Objective: To protect the unique biological and hydrological features associated with riparian areas, 100-year flood plains of major rivers, and water bodies and streams.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan

which demonstrates that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The area affected by this stipulation may be modified by the authorized officer if it is determined that portions of the area do not include riparian areas, flood plains, or water bodies.

Waiver: This stipulation may be waived by the authorized officer if it is determined that the entire leasehold does not include riparian areas, flood plains, or water bodies.

NO SURFACE OCCUPANCY

Resource: Land Use Authorizations

Stipulation: Surface occupancy and use is prohibited on FLPMA leases, permits, easements, and Rights-of-Way (ROWs).

Objective: To protect uses under existing FLPMA leases, permits, easements, and ROWs.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The area affected by this stipulation may be modified by the authorized officer if the land use authorization boundaries are modified.

Waiver: This stipulation may be waived by the authorized officer if all land use authorizations within the leasehold have been terminated, canceled, or relinquished.

NO SURFACE OCCUPANCY

Resource: Recreation

Stipulation: Surface occupancy and use is prohibited within developed recreation areas and undeveloped recreation areas receiving concentrated public use.

Objective: To protect developed recreation areas and undeveloped recreation areas receiving concentrated public use.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified by the authorized officer if the recreation area boundaries are changed.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer contains developed recreation areas or undeveloped recreation areas receiving concentrated public use.

NO SURFACE OCCUPANCY

Resource: Visual Resource Management (VRM) Class I

Stipulation: Surface occupancy and use is prohibited in VRM Class I areas (i.e., Wilderness, Wild and Scenic Rivers, etc.).

Objective: To preserve the existing character of the landscape.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified by the authorized officer if the boundaries of the VRM Class I area are changed.

Waiver: This stipulation may be waived by the authorized officer if all VRM Class I areas within the leasehold are reduced to a lower VRM class. Areas reduced to a lower VRM class will be subject to the Controlled Surface Use stipulation for visual resources.

CONTROLLED SURFACE USE

Resource: Visual Resource Management (VRM) Classes II, III, and IV

Stipulation: All surface-disturbing activities, semipermanent and permanent facilities in VRM Class II, III, and IV areas may require special design including location, painting and camouflage to blend with the natural surroundings and meet the visual quality objectives for the area.

Objective: To control the visual impacts of activities and facilities within acceptable levels.

Exception: None.

Modification: None.

Waiver: None.

NO SURFACE OCCUPANCY

Resource: Cultural Resources

Stipulation: Surface occupancy and use is prohibited within sites or areas designated for conservation use, public use, or sociocultural use.

Objective: To protect those cultural properties identified for conservation use, public use, and sociocultural use (see definitions for use categories within BLM Manual 8111).

Exception: An exception to this stipulation may be granted by the authorized officer if the lessee or operator submits a plan which demonstrates that the cultural resource values which formed the basis for designation are not affected, or if adverse impacts are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the designated site or area can be occupied without adversely affecting the cultural resource values for which the site or area was designated.

Waiver: This stipulation may be waived if the authorized officer determines that all designated sites or areas within the leasehold can be occupied without adversely affecting the cultural resource values for which such sites or areas were designated, or if all designated sites or areas within the leasehold are allocated for other uses.

Note: Compliance with Section 106 of the National Historic Preservation Act is required for all actions which may affect cultural properties eligible to the National Register of Historic Places.

NOTICE

Cultural Resources: An inventory of the leased lands may be required prior to surface disturbance to determine if cultural resources are present and to identify needed mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator shall:

1. Contact the Surface Management Agency (SMA) to determine if a cultural resource inventory is required. If an inventory is required, then;

2. The SMA will complete the required inventory; or the lessee or operator, at their option, may engage the services of a cultural resource consultant acceptable to the SMA to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the standard ten-acre minimum to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be submitted to the SMA for review and approval no later than that time when an otherwise complete application for approval of drilling or subsequent surface-disturbing operation is submitted.

3. Implement mitigation measures required by the SMA. Mitigation may include the relocation of proposed lease-related activities or other protective measures such as data recovery and extensive recordation. Where impacts to cultural resources cannot be mitigated to the satisfaction of the SMA, surface occupancy on that area must be prohibited. The lessee or operator shall immediately bring to the attention of the SMA any cultural resources discovered as a result of approved operations under this lease, and shall not disturb such discoveries until directed to proceed by the SMA.

Authorities: Compliance with Section 106 of the National Historic Preservation Act is required for all actions which may affect cultural properties eligible to the National Register of Historic Places. Section 6 of the Oil and Gas Lease Terms (Form 3100-11) requires that operations be conducted in a manner that minimizes adverse impacts to cultural and other resources.

NO SURFACE OCCUPANCY

Resource: Paleontological Resources

Stipulation: Surface occupancy and use is prohibited within designated paleontological sites.

Objective: To protect significant paleontological sites.

Exception: An exception to this stipulation may be granted by the authorized officer if the lessee or operator submits a plan which demonstrates that the paleontological resource values which formed the basis for designation are not affected, or if adverse impacts are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the designated site can be occupied without adversely affecting the paleontological resource values for which the site was designated, or if the boundaries of the designated site are changed.

Waiver: This stipulation may be waived if the authorized officer determines that all designated sites within the leasehold can be occupied without adversely affecting the paleontological resource values for which the sites were designated, or if all designated sites within the leasehold are allocated for other uses.

ATTACHMENT B.2

OIL AND GAS STIPULATIONS

ALTERNATIVE G

CONTROLLED SURFACE USE

Resource: Soils

Stipulation: Prior to surface disturbance on slopes over 30 percent, an engineering/reclamation plan must be approved by the authorized officer. Such plan must demonstrate how the following will be accomplished:

- Site productivity will be restored.
- Surface runoff will be adequately controlled.
- Off-site areas will be protected from accelerated erosion, such as rilling, gullying, piping, and mass wasting.
- Water quality and quantity will be in conformance with state and federal water quality laws.
- Surface-disturbing activities will not be conducted during extended wet periods.
- Construction will not be allowed when soils are frozen.

Objective: To maintain soil productivity, provide necessary protection to prevent excessive soil erosion on steep slopes, and to avoid areas subject to slope failure, mass wasting, piping, or having excessive reclamation problems.

Exception: None.

Modification: The area affected by this stipulation may be modified by the authorized officer if it is determined that portions of the area do not include slopes over 30 percent.

Waiver: This stipulation may be waived by the authorized officer if it is determined that the entire leasehold does not include slopes over 30 percent.

NO SURFACE OCCUPANCY

Resource: Riparian/Hydrology

Stipulation: Surface occupancy and use is prohibited within riparian areas, 100-year flood plains of major rivers, and on water bodies and streams.

Objective: To protect riparian vegetation and reduce erosion adjacent to water courses and protect reservoirs greater than 10 surface acres in size.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The area affected by this stipulation may be modified by the authorized officer if it is determined that portions of the area do not include riparian areas, flood plains, or water bodies.

Waiver: This stipulation may be waived by the authorized officer if it is determined that the entire leasehold does not include riparian areas, flood plains, or water bodies.

NO SURFACE OCCUPANCY

Resource: Land Use Authorizations

Stipulation: Surface occupancy and use is prohibited on FLPMA leases, permits, easements, and Rights-of-Way (ROWs).

Objective: To protect uses under existing FLPMA leases, permits, easements, and ROWs.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The area affected by this stipulation may be modified by the authorized officer if the land use authorization boundaries are modified.

Waiver: This stipulation may be waived by the authorized officer if all land use authorizations within the leasehold have been terminated, canceled, or relinquished.

NO SURFACE OCCUPANCY

Resource: Recreation

Stipulation: Surface occupancy and use is prohibited within developed recreation areas and undeveloped recreation areas receiving concentrated public use.

Objective: To protect developed recreation areas and undeveloped recreation areas receiving concentrated public use.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified by the authorized officer if the recreation area boundaries are changed.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer contains developed recreation areas or undeveloped recreation areas receiving concentrated public use.

NO SURFACE OCCUPANCY

Resource: Visual Resource Management (VRM) Class I

Stipulation: Surface occupancy and use is prohibited in VRM Class I areas (i.e., Wilderness, Wild and Scenic Rivers, etc.).

Objective: To preserve the existing character of the landscape.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified by the authorized officer if the boundaries of the VRM Class I area are changed.

Waiver: This stipulation may be waived by the authorized officer if all VRM Class I areas within the leasehold are reduced to a lower VRM class. Areas reduced to a lower VRM class will be subject to the Controlled Surface Use stipulation for visual resources.

CONTROLLED SURFACE USE

Resource: Visual Resource Management (VRM) Classes II, III, and IV

Stipulation: All surface-disturbing activities, semipermanent and permanent facilities in VRM Class II, III, and IV areas may require special design including location, paint-

ing and camouflage to blend with the natural surroundings and meet the visual quality objectives for the area.

Objectives: To control the visual impacts of activities and facilities within acceptable levels.

Exception: None.

Modification: None.

Wavier: None.

CONTROLLED SURFACE USE

Resource: Prairie dog towns within potential black-footed ferret reintroduction areas that have been determined to be essential for black-footed ferret recovery.

Stipulation: The "Draft Guidelines for Oil and Gas Activities in Prairie Dog Ecosystems Managed for Black-Footed Ferret Recovery," FWS, 1990, will be used as appropriate to develop site-specific conditions of approval to protect black-footed ferret reintroduction and recovery. Specific conditions of approval will depend on type and duration of proposed activity, proximity to occupied ferret habitat, and other site-specific conditions.

Objective: To maintain the integrity of designated black-footed ferret reintroduction area habitat for reintroduction and recovery of black-footed ferrets.

Exception: May be granted by the authorized officer for activities that are determined, through coordination with the MBFCC to have no adverse impacts on reintroduction and recovery of ferrets.

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in coordination with the MBFCC, determines that portions of the area are no longer essential for ferret reintroduction and recovery.

Waiver: The stipulation may be waived if the authorized officer, in coordination with the MBFCC, determines that the entire leasehold no longer contains habitat essential for the reintroduction and recovery of the ferret or if the ferret is removed from protection under the Endangered Species Act.

NO SURFACE OCCUPANCY

Resource: Wildlife - Interior Least Tern

Stipulation: Surface occupancy and use is prohibited within 1/4 mile of wetlands identified as interior least tern habitat.

Objective: To protect the habitat of the interior least tern, an endangered species under the Endangered Species Act (ESA).

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the interior least tern or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated. This plan must be approved by BLM in consultation with the U.S. Fish and Wildlife Service (FWS).

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in consultation with FWS, determines that portions of the area are no longer critical to the interior least tern.

Waiver: The stipulation may be waived if the authorized officer, in consultation with FWS, determines that the entire leasehold no longer contains habitat critical to the interior least tern, or if the interior least tern is declared recovered and is no longer protected under the ESA.

NO SURFACE OCCUPANCY

Resource: Wildlife - Piping Plover

Stipulation: Surface occupancy and use is prohibited within 1/4 mile of wetlands identified as piping plover habitat.

Objective: This stipulation is to be applied to the area around Nelson Reservoir which is the only known nesting site for the species at the current time.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the piping plover or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated. This plan must be approved by BLM in consultation with the U.S. Fish and Wildlife Service (FWS).

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in consultation with FWS, determines that portions of the area are no longer critical to the piping plover.

Waiver: The stipulation may be waived if the authorized officer, in consultation with FWS, determines that the entire leasehold no longer contains habitat critical to the piping plover, or if the piping plover is declared recovered and is no longer protected under the ESA.

NO SURFACE OCCUPANCY

Resource: Wildlife - Peregrine Falcon

Stipulation: Surface occupancy and use is prohibited within 1 mile of identified peregrine falcon nesting sites.

Objective: To protect the habitat of the peregrine falcon, an endangered species under the Endangered Species Act (ESA).

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the peregrine falcon or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated. This plan must be approved by BLM in consultation with the U.S. Fish and Wildlife Service (FWS).

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in consultation with FWS, determines that portions of the area no longer are critical to the peregrine falcon.

Waiver: The stipulation may be waived if the authorized officer, in consultation with FWS, determines that the entire leasehold no longer contains habitat critical to the peregrine falcon, or if the peregrine falcon is declared recovered and is no longer protected under the ESA.

NO SURFACE OCCUPANCY

Resource: Wildlife - Bald Eagle Nest Sites and Nesting Habitat

Stipulation: Surface occupancy and use is prohibited within 1/2 mile of known bald eagle nest sites which have been active within the past 7 years and within bald eagle nesting habitat in riparian areas.

Objective: To protect bald eagle nesting sites and/or nesting habitat in accordance with the Endangered Species Act (ESA) and the Montana Bald Eagle Management Plan.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates

that the proposed action will not affect the bald eagle or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated. This plan must be approved by BLM in consultation with the U.S. Fish and Wildlife Service (FWS).

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in consultation with FWS, determines that portions of the area can be occupied without adversely affecting bald eagle nest sites or nesting habitat.

Waiver: This stipulation may be waived if the authorized officer, in consultation with FWS, determines that the entire leasehold can be occupied without adversely affecting bald eagle nest sites or nesting habitat, or if the bald eagle is declared recovered and is no longer protected under the ESA.

TIMING

Resource: Wildlife - Raptor Nests

Stipulation: Surface use is prohibited from March 1 to August 1, within 1/2 mile of raptor nest sites which have been active within the past 2 years. This stipulation does not apply to the operation and maintenance of production facilities. Raptor species of concern: Golden Eagle, Northern Goshawk, Ferruginous Hawk, Merlin, Prairie Falcon, Red Tail Hawk, Great Horned Owl, Northern Saw-whet Owl, Coopers Hawk, Burrowing Owl, and Swainson's Hawk.

Objective: This stipulation is consistent with the guidelines used in the West HiLine and Headwaters RMPs which border the planning area on the North and West making its use uniform throughout the Lewistown District. This stipulation can be implemented at the time of an onsite inspection for drilling permits and sundry notices which involve surface disturbance activity which would be disruptive to the nesting species. A stipulation which addresses occupied nests is more easily documented as to species and duration of use.

The historical activity in the planning area, associated with oil and gas exploration and development, involving shallow wells with small areas of surface disturbance and lasting for short duration are not considered incompatible with nesting raptor species covered by this stipulation.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area no longer are within 1/2 mile of raptor nest sites which have been active within the past 2 years. The dates for the timing restriction may be modified if new information indicates that the March 1 to August 1 dates are not valid for the leasehold.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer is within 1/2 mile of raptor nest sites which have been active within the past 2 years.

NO SURFACE OCCUPANCY - TIMING

Resource: Wildlife - Grouse Leks

Stipulation: No surface occupancy for lek. Seasonal restriction on exploration from March 15 to June 15, for a distance of 1/4 mile from lek to protect nesting habitat.

Objective: The actual lek defines the area where winter and spring use of the surrounding habitat is concentrated. The integrity of the actual lek must be protected to insure use (this is assigned an average of 1/4 acre). This stipulation will allow flexibility to restrict activity at the time surface disturbance is proposed on the lease. It will involve less delay in the permitting process and provide the appropriate level of protection for the species. The use of the time and distance combination to stipulate protection for associated nest habitat around the lek is a restriction that has worked well in the past in this area and it is a procedure that local oil and gas operators are familiar with. Because of the heavy concentration of grouse habitat on BLM land, use of a larger NSO stipulation would not be practical in the planning area. Much of the area, that is currently open, would be closed to drilling and producing if a 1/4 mile NSO restriction is adopted for the grouse lek. Directional drilling for shallow gas wells is not technically or economically feasible. The drastic change from past mitigation measures, that this stipulation represents is not needed to insure adequate protection for grouse populations in the area. This has been documented by monitoring the species over the last ten years while the stipulation with seasonal protection has been in effect.

Exception: The authorized officer can grant an exception to a specific activity if it is determined by the biologist that the area of disturbance will not constitute a loss of habitat.

Modification: A portion of the leased lands can be open to activity if field inspection shows that species using the lek or nesting habitat is not in the area.

Waiver: This stipulation can be waived when the available data shows that the portion of the lease under the restriction is no longer occupied by the species for a lek or nest habitat.

TIMING

Resource: Wildlife - Mountain Plover

Stipulation: Surface use is prohibited from April 1 to July 31 within 1/4 mile of occupied nesting habitat for mountain plovers. This stipulation does not apply to the operation and maintenance of production facilities.

Objective: To protect the habitat of the mountain plover, a candidate species identified by the USFWS.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the mountain plover or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area are no longer critical to the mountain plover.

Waiver: The stipulation may be waived if the authorized officer determines that the portion of the lease under the restriction is no longer occupied by the species for nesting habitat.

TIMING

Resource: Wildlife - Crucial Winter Range

Stipulation: Surface use is prohibited from December 1 to April 30 within crucial winter range for wildlife. This stipulation does not apply to the operation and maintenance of production facilities.

Objective: To protect crucial white-tailed deer, mule deer, elk, antelope, moose, bighorn sheep, and sage grouse winter range from disturbance during the winter use season, and to facilitate long-term maintenance of wildlife populations.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area no longer contain crucial winter range for wildlife. The dates for the timing restriction may be modified if new wildlife use information indicates that the December 1 to April 30 dates are not valid for the leasehold.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer contains crucial winter range for wildlife.

NO SURFACE OCCUPANCY

Resource: Reservoirs with Fisheries

Stipulation: Surface occupancy and use is prohibited within 1/4 mile of designated reservoirs with fisheries.

Objective: This stipulation is intended to protect the fisheries and recreational values of reservoirs.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the fisheries and recreational values of the reservoir.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold can be occupied without adversely affecting the fisheries and recreational values of the reservoir.

NO SURFACE OCCUPANCY

Resource: Cultural Resources.

Stipulation: Surface occupancy and use is prohibited within sites or areas designated for conservation use, public use, or sociocultural use.

Objective: To protect those cultural properties identified for conservation use, public use, and sociocultural use (see definitions for use categories within BLM Manual 8111).

Exception: An exception to this stipulation may be granted by the authorized officer if the lessee or operator submits a plan which demonstrates that the cultural resource values which formed the basis for designation are not affected, or

if adverse impacts are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the designated site or area can be occupied without adversely affecting the cultural resource values for which the site or area was designated.

Waiver: This stipulation may be waived if the authorized officer determines that all designated sites or areas within the leasehold can be occupied without adversely affecting the cultural resource values for which such sites or areas were designated, or if all designated sites or areas within the leasehold are allocated for other uses.

Note: Compliance with Section 106 of the National Historic Preservation Act is required for all actions which may affect cultural properties eligible to the National Register of Historic Places.

NOTICE

Cultural Resources: The Surface Management Agency is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Guidance for application of this requirement can be found in NTL-MSO-85-1.

Objective: This Notice would be consistent with the present Montana guidance for cultural resource protection related to oil and gas operations (NTL-MSO-85-1).

Exception: None.

Modification: None.

Waiver: None.

NO SURFACE OCCUPANCY

Resource: Paleontological Resources

Stipulation: Surface occupancy and use is prohibited within designated paleontological sites.

Objective: To protect significant paleontological sites. There is only one 40 acre site within the district to which this applies. It is located in an area with moderate oil and gas potential. There are several quarry sites which should not be disturbed.

Exception: An exception to this stipulation may be granted by the authorized officer if the lessee or operator submits a plan which demonstrates that the paleontological resource values which formed the basis for designation are not affected, or if adverse impacts are acceptable or can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the designated site can be occupied without adversely affecting the paleontological resource values for which the site was designated, or if the boundaries of the designated site are changed.

Waiver: This stipulation may be waived if the authorized officer determines that all designated sites within the leasehold can be occupied without adversely affecting the paleontological resource values for which the sites were designated, or if all designated sites within the leasehold are allocated for other uses.

APPENDIX C

USFWS THREATENED AND ENDANGERED SPECIES



United States Department of the Interior

FISH AND WILDLIFE SERVICE

MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA, MT 59601
PHONE (406) 449-5225, FAX (406) 449-5339
EMAIL heles@initco.net

M.02 BLM Judith, Valley,
and Phillips Resource Areas

December 23, 1997.

MEMORANDUM

To: District Manager, Bureau of Land Management, Lewistown
District Office, Lewistown, MT

From: Field Supervisor, Montana Field Office, Helena, MT

Subject: Updated T&E Species List - Judith, Valley, Phillips Oil
and Gas Supplement Resource Management Plan

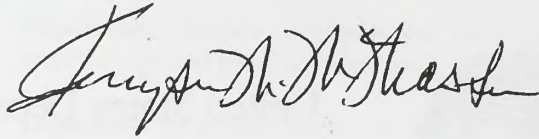
Thank you for your December 10, letter regarding an updated threatened and endangered species list for the Resource Management Plan Supplement to the Judith, Valley, Phillips Resource Management Plan. The list provided on November 26, 1996 is still pertinent and includes the following species:

<u>Listed Species</u>	<u>Expected Occurrence</u>
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Year-round resident, Nesting Winter resident, Migrant
Peregrine falcon (<i>Falco peregrinus</i>)	Summer resident, Migrant
Black-footed ferret (<i>Mustela nigripes</i>)	Potential resident in prairie dog (<i>Cynomys</i> sp.) towns. Non-essential experimental population in Phillips and Blaine Counties
Pallid Sturgeon (<i>Scaphirhynchus albus</i>)	Missouri River
Piping plover (<i>Charadrius melodus</i>)	Missouri River sandbars, alkaline wetlands, reservoir beaches

Candidate species that may occur within the project area include sicklefin chub (*Macrhybopsis meeki*), sturgeon chub (*Macrhybopsis gelida*), mountain plover (*Charadrius montanus*) and swift fox (*Vulpes velox*). Although candidate species have no legal status and are accorded no protection under the Endangered Species Act, candidate species are included to alert your agency of potential proposals or listings.

Your efforts to meet our joint responsibilities under the Endangered Species Act of 1973 as amended, are appreciated.

DMC



cc: Suboffice Coordinator, USFWS, Ecological Services (Billings, MT)

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DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, COLORADO 80225

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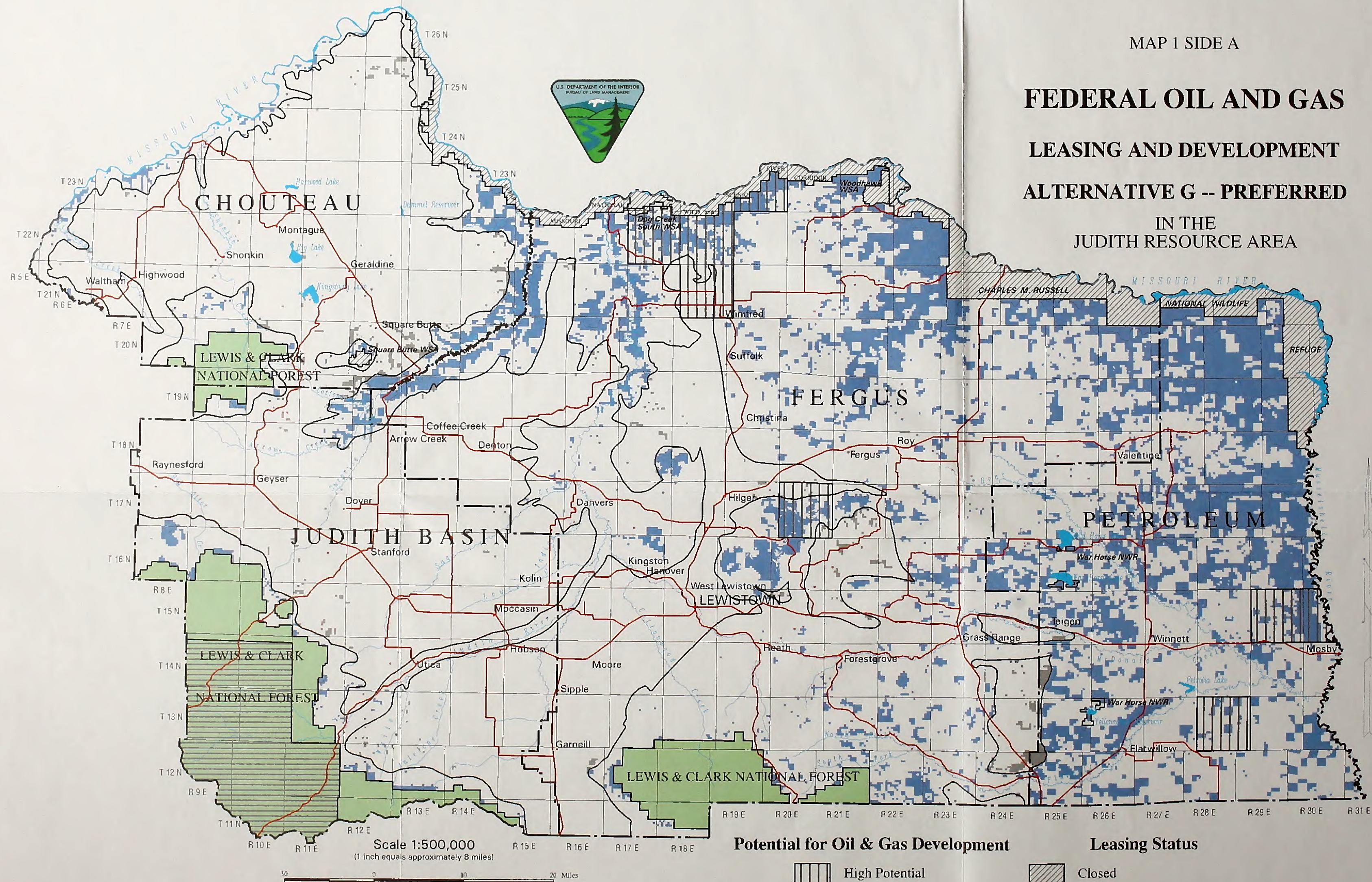
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Oil and gas supplemental
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DENVER, COLORADO 80225

MAP 1 SIDE A

FEDERAL OIL AND GAS LEASING AND DEVELOPMENT ALTERNATIVE G -- PREFERRED IN THE JUDITH RESOURCE AREA



(There are some lands subject to site specific NSO restrictions (3,553 acres) which cannot be accurately shown at this map scale. These include: four parcels of BLM land in Blacktail Coulee, developed recreation sites, bald eagle nests, piping plover nesting habitat, grouse leks, fishing and recreational reservoirs, raptor nests and riparian areas. The planning area does not include the Upper Missouri Wild and Scenic River Corridor.)

This is a graphic display of Federal Oil and Gas. More detailed information on title and legal location is available at the respective BLM Resource Area Offices.



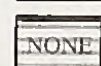
MAP 1 SIDE B

FEDERAL OIL AND GAS LEASING AND DEVELOPMENT ALTERNATIVE G -- PREFERRED

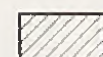



IN THE VALLEY AND
PHILLIPS RESOURCE AREAS

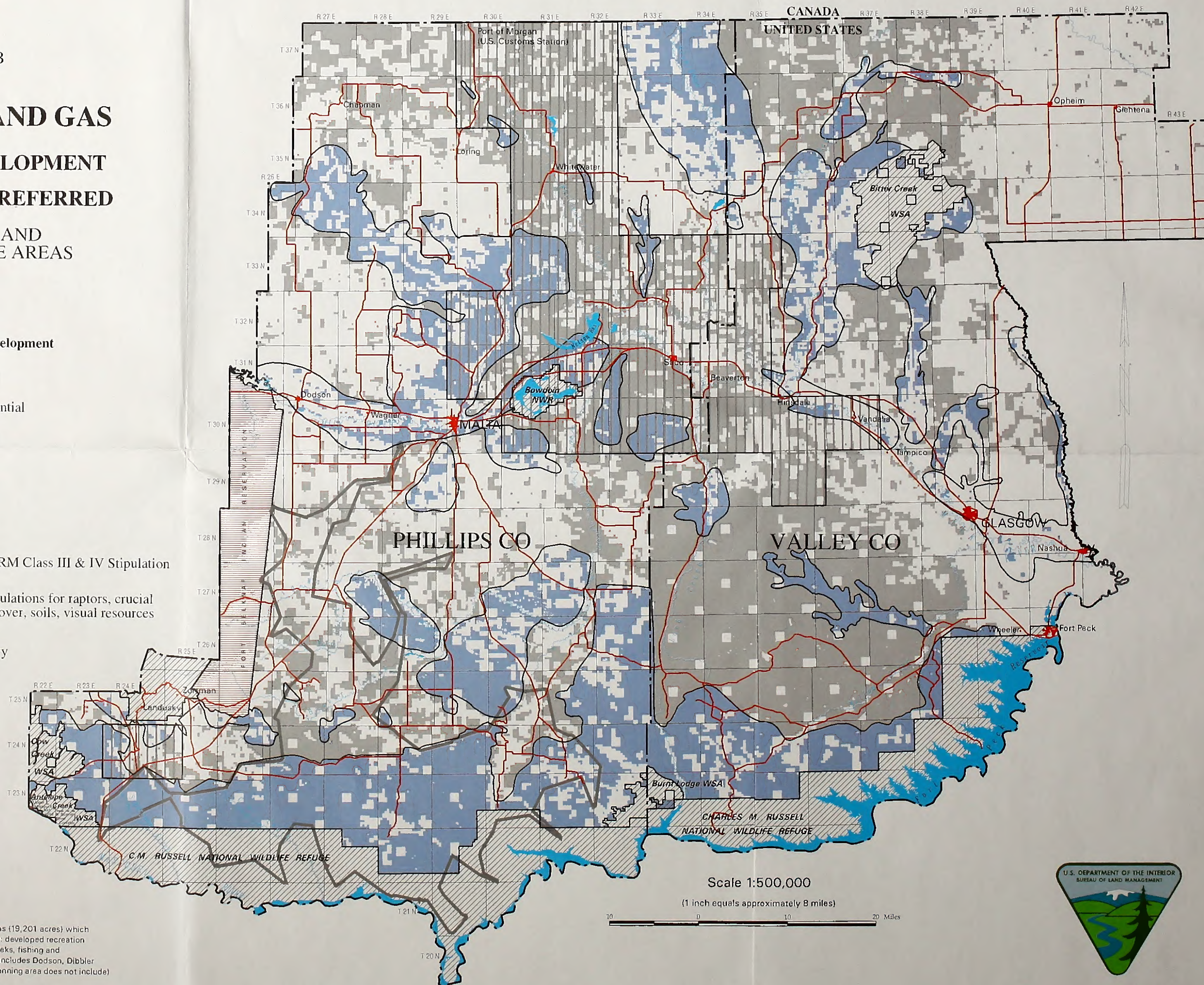
LEGEND

Potential for Oil & Gas Development

-  High Potential
-  Moderate Potential
-  Low Potential

Leasing Status

-  Closed
-  Open with Standard Terms and a VRM Class III & IV Stipulation
-  Open with Standard Terms and Stipulations for raptors, crucial winter range, grouse, mountain plover, soils, visual resources and prairie dog towns.
-  Prairie Dog 7Km Complex Boundary



Scale 1:500,000

(1 inch equals approximately 8 miles)

10 0 10 20 Miles

(There are some lands subject to site specific NSO restrictions (19,201 acres) which cannot be accurately shown at this map scale. These include: developed recreation sites, bald eagle nests, piping plover nesting habitat, grouse leks, fishing and recreational reservoirs, raptor nests, and riparian areas. This includes Dodson, Dibbler and Whitewater Reservoirs and the Henry Smith Site. The planning area does not include the Upper Missouri National Wild and Scenic River Corridor.)

This is a graphic display of Federal Oil and Gas. More detailed information on title and legal location is available at the respective BLM Resource Area Offices.



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I